

Drinking Water Surveillance Program

HAWKESBURY WATER TREATMENT PLANT

Annual Report 1989



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HAWKESBURY WATER TREATMENT PLANT

DRINKING WATER SURVEILLANCE PROGRAM

ANNUAL REPORT 1989

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EXECUTIVE SUMMARY

DRINKING WATER SURVEILLANCE PROGRAM

HAWKESBURY WATER TREATMENT PLANT 1989 ANNUAL REPORT

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. In 1989, there were 65 supplies being monitored.

The Hawkesbury Water Treatment Plant is a package plant that treats water from the Ottawa River. The process consists of coagulation, flocculation and sedimentation using an upflow solids contact clarifier, filtration and disinfection. The Hawkesbury plant has a design capacity of 15.89 X 1000 M²/day and supplies a population of approximately 10,000.

Water samples from the plant: raw and treated and two distribution system sites were taken on a monthly basis beginning in April and analysed for 160 parameters. Parameters were divided into the following groups: Bacteriological, Inorganic and Physical (Laboratory Chemistry, Field Chemistry and Metals) and Organic (Chloroaromatics, Chlorophenols, Pesticides and PCB, Phenolics, Polynuclear Aromatic Hydrocarbons, Specific Pesticides and Volatiles). Chlorophenols and Specific Pesticides were analysed in June and November only.

A summary of results is shown in Table 1.

The Ontario Drinking Water Objective (ODWO) of 1 FTU for turbidity was exceeded in one treated water sample. The District Officer was notified. All other Inorganic and Physical parameters were below any applicable health related ODWOs.

Of a total of approximately 110 Organic parameters tested for on a monthly basis, none exceeded any health related guidelines.

During 1989 the DWSP sampling results indicated that the Hawkesbury Water Treatment Plant produced good quality water at the plant and this quality was maintained in the distribution system.

SUMMARY TABLE BY SCAN

		DAU		TD	TREATED		0	SITE 1			SITE 3		12	SITE 2	
SCAM	TESTS	POSITIVE	XPOSITIVE	TESTS	POSITIVE	XPOS1T1 VE	TESTS	TESTS POSITIVE XPOSITIVE TESTS POSITIVE TESTS POSITIVE TESTS POSITIVE XPOSITIVE XPOSITIVE XPOSITIVE XPOSITIVE	SITIVE	TESTS	POSITIVE %PO	DSITIVE	TESTS	TIVE TESTS POSITIVE XPOSITIVE	OSITIVE
BACTEDIOLOCICAL	5	17	Q.	27	13	87	76	ď	00	٣	-	11	12	ţ	27
BACIENTOLOGICAL	7	-	3	i,	2	7	j.	-	2	r	-	ç	Ĵ	2	ř
CHEMISTRY (FLD)	\$	26	89	52	52	100	89	89	100	12	12	100	11	2	86
CHEMISTRY (LAB)	180	156	86	180	144	80	280	251	89	35	30	85	235	203	8
METALS	216	103	47	216	85	39	376	173	94	27	20	42	329	145	44
CHLOROAROMATICS	78	0	0	112	0	0	98	0	0	14	0	0	92	0	0
CHLOROPHENOLS	Ŷ	0	0	9	0	0	•	٠	•	•	•		•		•
РАН	124	0	0	139	0	0	•	٠	•	•	٠	٠	٠		٠
PESTICIDES & PCB	230	0	0	272	0	0	199	0	0	21	0	0	131	0	Q
PHENOL I CS	\$	6	100	0	7	17	•		•			•	•		٠
SPECIFIC PESTICIDES	32	0	0	26	0	0	7	0	0	-	0	0	Ś	0	0
VOLATILES	261	0	0	261	25	6	232	22	\$	\$	m	10	174	18	10
	1192	311		1300	326		1305	240		162	%		1036	949	
	THE (DDWO FOR T	URBIDITY (() FTU)	WAS EXCEED	ED IN ONE	TREATEC	THE COND FOR TURBIDITY (1 FTU) MAS EXCEEDED IN ONE TREATED WATER, NO OTHER HEALTH-RELATED GUIDELINES WERE EXCEEDED.	DTHER HE	ALTH-RE	LATED GUIDEL	INES WER	E EXCEEL	DED.	

TABLE A

TOTAL

A POSITIVE VALUE DEMOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE A '.' INDICATES THAT NO SAMPLE WAS TAKEN

DRINKING WATER SURVEILLANCE PROGRAM

HAWKESBURY WATER TREATMENT PLANT 1989 ANNUAL REPORT

INTRODUCTION

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. In 1989, there were 65 supplies being monitored. Appendix A carries a full description of the DWSP.

The DWSP was initiated for the Hawkesbury Water Treatment Plant in April of 1989.

This report contains information and results for 1989.

PLANT DESCRIPTION

The Hawkesbury Water Treatment Plant is a conventional treatment plant that treats water from the Ottawa River. The process consists of coagulation, flocculation and sedimentation in an upflow solids contact clarifier, filtration and disinfection. Calcium Carbonate

is added to adjust the pH. The Hawkesbury plant has a design capacity of 15.89 X 1000 M^3 /day and flows for day of sampling ranging from 10.4 x 1000 m^3 /day to 13.3 x 1000 m^3 /day. The plant serves a population of approximately 10,000.

The plant location is shown in Figure 1. Plant process details, in a block schematic, are shown in Figure 2. General plant information is presented in Table 2.

SAMPLING LOCATIONS

Water samples were obtained from six DWSP approved locations;

- i) Raw The water originated from the lowlift discharge line prior to chlorination and was sampled through stainless steel sample lines. The sample tap is located on the discharge line inside the main building.
- ii) Treated The water originated from the highlift discharge after addition of all treatment chemicals and was sampled through a stainless steel sample line. The sample tap is located on the highlift discharge line.
- iii) Site 1 This site is approximately 2.0 kilometers from the plant. Water is sampled through copper plumbing , the sample tap is located at the kitchen sink.

- iv) Site 2 The distance of this site from the plant is unavailable as is the house plumbing and sample tap location.
 - v) Site 3 The distance of this site from the plant is unavailable, as is the house plumbing and sample tap location.
 - vi) Site 4 This site is approximately 4.0 kilometers from the plant. The sample tap location and type of plumbing is unavailable. Sampling at this site was stopped in May.

SAMPLING AND ANALYSIS

Sample lines in the plant were flushed prior to sampling to ensure that the water obtained was indicative of its origin and not residual water standing in the sample line.

At all distribution system locations two types of samples were obtained: a standing and a free flow. The standing sample consisted of water that had been in the household plumbing and service connection for a minimum of six hours. These samples are used to

make an assessment of the amount by which the levels of inorganic compounds and metals may be changed on standing, due to leaching from (or deposition on), the plumbing system. The only analysis carried out on the standing samples therefore, are General Chemistry and Metals. The free flow sample represented fresh water from the distribution main that had been flowing at the sample tap for five minutes before being sampled.

Attempts were made to capture the same block of water at each sampling point by taking the retention time into consideration. The retention time was calculated by dividing the volume of water between the two sampling points by the sample day flow. For example, if it was determined that the retention time within the plant was five hours then there would be a five hour interval between the raw and treated sampling. Similarly, if it was estimated that it took approximately one day for the water to travel from the plant to the distribution system site, this site would be sampled one day after the treated water from the plant.

Stringent DWSP sampling protocols were followed to ensure that all samples were taken in a uniform manner.

Plant operating personnel perform analyses on parameters for process control (Table 1).

FIGURE 1

DRINKING WATER SURVEILLANCE PROGRAM SITE LOCATION MAP

HAWKESBURY WATER TREATMENT PLANT

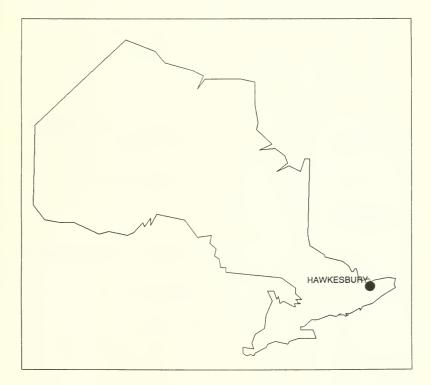


FIGURE 2

HAWKESBURY WTP

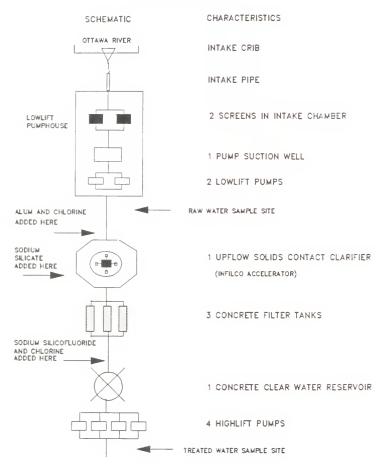


TABLE 1

DRINKING WATER SURVEILLANCE PROGRAM ANNUAL REPORT

IN-PLANT MONITORING HAWKESBURY WATER TREATMENT PLANT 1989

PARAMETER	LOCATION	FREQUENCY
Aluminum	Accelator Treated water	daily daily
Chlorine residual - free	Treated water	twice daily
total	Treated water	continuous
Colour	Raw water	twice daily
	Treated water	twice daily
Fluoride	Treated water	continuous daily
рН	Raw water	twice daily
	After filters	twice daily
	At accelator	twice daily
	Treated water	twice daily
Temperature	Raw water	twice daily
	Treated water	twice daily
Turbidity	Raw water	twice daily
	Afer filters	continuous twice daily
	Treated water	twice daily

TABLE 2

DRINKING WATER SURVEILIANCE PROGRAM ANNUAL REPORT

GENERAL INFORMATION

HAWKESBURY WATER TREATMENT PLANT

LOCATION:	670 MAIN STREET W
	HAWKESBURY, ONTARIO
	K6A 1V9
	(613-764-5678)

SOURCE: RAW WATER SOURCE - OTTAWA RIVER

DESIGN CAPACITY: 15.9 x 1000M³/DAY

OPERATION: MUNICIPAL

PLANT SUPERINTENDENT: R. GUERTAIN

MINISTRY REGION: SOUTHEAST

DISTRICT OFFICER: MR G. MCKENNA

MUNICIPALITY SERVED POPULATION

HAWKESBURY

9,666

The Hawkesbury Water Treatment Plant, raw and treated water and two distribution system locations were sampled for approximately 160 parameters on a monthly basis beginning in April. The Specific Pesticides and Chlorophenols scans were sampled in June and The Hawkesbury Water Treatment Plant, raw and treated water and two distribution system locations were sampled for approximately 180 parameters. Chlorophenols and Specific Pesticides were analysed in November only. Polynuclear Aromatic Hydrocarbons and Phenolics are only analysed in the raw and treated water at the plant.

RESULTS

Field measurements were recorded on the day of sampling and were entered onto the DWSP data base as submitted by plant personnel.

Table 3 contains information on the sample day retention time, flow rate and treatment chemicals used and their associated dosages.

Table 4 is a summary break-down of the number of water samples analysed by parameter and by water type. The number of times that a positive or trace result was detected is also reported.

Positive denotes that the result is greater than the statistical limit of detection established by the Ministry of the Environment (MOE) laboratory staff and is quantifiable. Trace (<T) denotes that the level measured is greater than the lowest value detectable

by the method but lies so close to the detection limit that it cannot be confidently quantified.

Table 5 presents the results for parameters detected on at least one occasion.

Table 6 lists all parameters analysed in the DWSP.

Associated guidelines and detection limits are also supplied on tables 5 and 6. Parameters are listed alphabetically within each scan.

DISCUSSION

<u>General</u>

Water quality is judged by comparison with the Ontario Drinking Water Objectives (ODWO's) as defined in the 1984 publication (ISBN 0-7743-8985-0). The Province of Ontario has health related and aesthetic objectives for 49 parameters, these are currently under review. When an ODWO is not available guidelines/limits from other agencies are consulted. The Parameter Listing System (PALIS), recently published (ISBN 0-7729-4461-X) by the MOE, catalogues and keeps current over 1750 guidelines for 650 parameters from agencies throughout the world.

Many of the compounds detected are naturally occuring or are

treatment by-products.

Plant operational personnel address occurrences of taste and odour or biological water quality parameters. The DWSP does not assess these aspects of the water supply.

As stated under Results, traces do not indicate quantifiable results as defined by established MOE laboratory analytical reporting protocols. While they can be useful in trend analysis or confirmation of the presence of a specific contaminant that is repeatedly detected at these levels, the occasional finding of a trace level of a contaminant is not considered to be significant. DISCUSSION OF GUIDELINES AND LIMITS THEREFORE, IS ONLY CONDUCTED ON POSITIVE RESULTS.

Bacteriology

Positive results for the Bacteriology scan were present thirteen times in the treated water, five times in the Site 1 water, ten times in the Site 2 water, once in the Site 3 water and twice in the Site 4 water. The positive parameters were Standard Plate Count Total Coliform and/or Total Coliform Background.

Total Coliforms at 1/100 mL were detected by the membrane filtration test in the April treated water sample and at 2/100 mL in the Site 1 sample. The ODWO for Total Coliforms is 5/100 mL.

Standard Plate Count is a test used to supplement routine analysis for Coliform bacteria. The limit for Standard Plate Count (at 35°C after 48 hours) in the ODWOS is 500 organisms per mL (based on a geometric mean of 5 or more samples). High Standard Plate Counts were present in both of the May treated water samples and in July, in the July Site 1 water, the May, July, September and October Site 2 water and the August Site 3 water. While no indicators of unsafe water were detected at this time, the high Standard Plate Count may generally be a result of the higher temperatures in the summer months. A total Chlorine Residual of at least 0.05 mg/L was detected in all distribution system samples. No samples contained bacteriological results over any applicable health related ODWOS.

Guidelines for bacteriological sampling and testing of a supply are developed to maintain a proper supervision of its bacteriological quality; the routine monitoring program usually requires the taking of multiple samples in a given system. Full interpretation of bacteriological quality cannot be made on the basis of single samples. Further, bacteriological limits were developed in acknowledgement that the presence of coliforms may be detected due to their non-uniform distribution throughout the distribution system and the fact that their enumeration is subject to considerable variation. For these reasons, the occasional finding of low numbers of coliform organisms is not unexpected. Routine bacteriological monitoring, as outlined in the ODWOs is carried out

by the operating authority.

Inorganic and Physical

Laboratory and Field Chemistry

The aesthetic ODWO of 5 True Colour Units (TCU) was exceeded in four treated water samples and six distribution system Site free flow waters. Colour in drinking water may be due to the presence of natural or synthetic organic substances as well as certain metallic ions.

It is desirable that the Temperature of drinking water be less than 15°C; the palatability of water is enhanced by its coolness. A temperature below 15°C will tend to reduce the growth of nuisance organisms and hence minimize associated taste, colour, odour and corrosion problems. The temperature of the delivered water may increase in the distribution system due to the warming effect of the soil in late summer and fall and/or as a result of higher temperatures in the source water. The desired ODWO was exceeded twelve times in the treated waters.

The Langelier Index is used extensively in estimating the corrosion potential of water. An increasingly negative index indicates the increasing possibility of corrosion. It is considered sound engineering practice to maintain a slightly positive Langelier

Index. The Langelier Index for Hawkesbury is consistently negative.

Turbidity in water is caused by the presence of suspended matter such as clay, silt, colloidal particles, plankton and other microscopic organisms. The most important potential health effect of Turbidity is its interference with disinfection in the treatment plant and the maintenance of a chlorine residual. The ODWO of 1 Formazin Turbidity Unit (FTU) was exceeded in the December treated water sample. The District Officer was notified. The turbidity values reported by the laboratory were not confirmed by the field turbidity and according to the protocol for turbidity analyses the field results are considered to be the more accurate.

As part of the treatment plant process, sodium silicofluoride is added to the treated water (Table 3). Where fluoridation is practiced, the Fluoride concentration recommended on the ODWO is 1.2 mg/L, plus or minus 0.2 mg/L. This level was generally not maintained as can be seen in the fluoride values reported on Table 5. In July the sodium silicofluoride dosage was not sufficient to produce the recommended fluoride concentration.

Metals

The results reported for the Metals scan were below any applicable health related ODWOs.

Iron and Manganese levels were lower in the treated water as

compared to the raw water. This is a result of the treatment process. The addition of Alum as a coagulant to the raw water and the resulting coagulation/settling process has been shown to reduce the levels of most metals.

Elevated levels of Copper, Nickel, Lead and Zinc were detected in the standing samples as compared to the free flow distribution samples, indicating that very small quantities of these metals were leached from the household plumbing as the water stood overnight.

The negative Langelier Index indicates potential for corrosion. At present, there is no evidence that Aluminum is physiologically harmful and no health limit for drinking water has been specified. The measure of residual Aluminum in the treated water is important to indicate the efficiency of the treatment process. The ODWOS indicate that a useful guideline is to maintain a residual below 100 μ g/L as Al in the water leaving the plant to avoid problems in the distribution system. Aluminum values exceeded the ODWO operational guideline in nine out of nine treated water samples.

The wide variation in Aluminum values between the raw water and the treated water is an indication of fast changing water quality in the Ottawa River but the fact that aluminum levels in the treated water are higher than in the raw water suggests that the process has not been optimized.

Organic Parameters

Chloroaromatics

The results of the Chloroaromatics scan showed that no chloroaromatics were detected.

Chlorophenols

The results of the Chlorophenols scan showed that two Chlorophenols were detected:

2,3,5,6-Tetrachlorophenol 2,4,6-Trichlorophenol

2,3,4,6 - Tetrachlorophenol was detected at a trace level in one raw water sample.

2,4,6 - Trichlorophenol was detected at trace levels, once in the raw water and once in the treated water.

The maximum desirable concentration of phenolic substances in drinking water is 2.0 μ g/L. This limit has been set primarily to prevent the occurrence of undesirable tastes and odours, particularly in chlorinated water. Phenolics were detected at levels ranging from 1.2 to 6.6 μ g/L in the raw water and 1.0 to 3.0 μ g/L in the treated water.

Pesticides and PCB (Polychlorinated Biphenyls)

The results of the Pesticides and PCB scan showed that no PCBs were detected and that one pesticide was detected:

Alpha BHC

There are several isomers of BHC (Benzene Hexachloride); gamma BHC is the active ingredient of the pesticide Lindane; while alpha BHC is the isomer predominantly found in surface waters from the Great Lakes Basin as indicated in results from other water supplies on DWSP.

Alpha BHC was detected at trace levels, once in the raw water, twice in the treated water, once in the Site 1 water and once in the Site 2 water.

Specific Pesticides

Results of the Specific Pesticides scan showed that no specific pesticides were detected.

Polynuclear Aromatic Hydrocarbons (PAHs)

The results of the PAH scan showed that no PAHs were detected.

Volatiles

The results of the Volatiles scan showed that nine parameters, other than Trihalomethanes(THMs), were detected:

Benzene Toluene Ethylbenzene O-Xylene Styrene 1,1,1 Trichloroethane Trichloroethylene Tetrachloroethylene 1,4-Dichlorobenzene

Benzene was detected at trace levels, once in the treated water and once in the Site 1 water.

The detection of toluene at low, trace levels is a laboratory artifact derived from the analytical methodology.

Ethylbenzene was detected at trace levels, three times in the treated water, once in the Site 1 water, once in the Site 2 water and once in the Site 4 water.

Ortho-Xylene (O-Xylene) was detected at trace levels, once in the Site 1 water and once in the Site 2 water.

The detected trace levels of Styrene are also considered to be laboratory artifacts resulting from the polystyrene shipping containers. The sporadic background levels from this source are in

the order of 0.05 μ g/L.

The volatiles listed above are typically found on an occasional basis at other water supplies included on the DWSP.

1,1,1 Trichloroethane was detected at trace levels, twice in the raw water, once in the treated water, once in the Site 1 water and once in the Site 2 water.

Trichloroethylene was detected at a trace level in the Site 2 water.

Tetrachloroethylene was detected at a trace level, once in the treated water, once in the Site 1 water and once in the Site 4 water.

1,4-Dichlorobenzene was detected at a trace level in the Site 1 water.

THMs are acknowledged to be produced during the water treatment process and will always occur in chlorinated surface waters. THMs are comprised of Chloroform, Chlorodibromomethane and Dichlorobromomethane. Bromoform occurs occasionally. Results are reported for the individual compounds as well as for total THMs.

Chloroform, Dichlorobromomethane and Total THMs were detected in

all treated water samples. Chlorodibromomethane was detected at trace levels, twice in the treated water, twice in the Site 1 water and once in the Site 2 water. Bromoform was not detected. All Total THM occurrences, ranging from 27.2 to 103.9 μ g/L were well below the ODWO of 350 μ g/L.

CONCLUSIONS

The Hawkesbury Water Treatment Plant for the sample year of 1989 produced good quality water and this quality was maintained in the distribution system.

The health related ODWO for Turbidity was exceeded in one treated water sample. No other health related guidelines were exceeded during 1989.

RECOMMENDATIONS

Two recommendations can be made:

 The reason for elevated Aluminum levels in treated water samples should be investigated. The plant processes may need to be optimized.

 Fluoride dosage should be adjusted so that the recommended concentration is maintained.

TABLE 3

DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WIP SAMPLE DAY CONDITIONS FOR 1989

POST-CHLORINATION CHLOR I NE .86 .91 .91 .91 .91 .40 1.40 1.20 1.20 1.20 POST PH ADJUSTMEN CALCIUM CARBONATE 13.63 14.76 14.20 12.00 13.52 11.84 15.50 12.15 14.00 SODIUM SILICOFLUORIDE FLUOR IDATION 1.32 .52 .52 1.00 1.20 1.30 1.30 TREATMENT CHEMICAL DOSAGES (MG/L) COAGULATION AID SODIUM SILICATE 1.50 .89 .90 .96 .96 .96 1.14 PRE-CHLORINATION CHLORINE .50 ۴. ٠ • . COAGULATION ALUM LIQUID 25.00 27.16 35.00 32.17 28.60 28.00 27.88 33.00 37.90 SAMPLE DAY CONDITIONS 10.4 13.3 13.3 12.8 12.8 12.4 11.3 12.4 (1000M3) FLOW TIME(HRS) DELAY* 5.0 3.4 5.9 5.9 5.8 3.5 6.0 MAY 02 MAY 31 JUL 04 AUG 09 SEP 06 OCT 03 NOV 14 DEC 12 APR 05 DATE

* THE DELAY YIME BETWEEN THE RAW AND TREATED WATER SAMPLING, SHOULD ESTIMATE THE RETENTION TIME.

			RAW			TREATED			SITE 1		SIT	SITE 3		SIT	SITE 2		SI	S11E 4	
SCAN	PARAMETER	TOTAL	TOTAL POSITIVE TRACE	TRACE		TOTAL POSITIVE TRACE	TRACE	TOTAL	TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE	TRACE	TIVE TRACE TOTAL POSITIV	SITIVE 1	RACE	TOTAL PO	SITIVE T	IRACE	TOTAL PI	TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE	IRACE
BACTERIOLOGICAL	FECAL COLIFORM MF	7	5	0		•		•											
	STANDRD PLATE CNT MF	•	•	•	6	8	0	80	£	0	F	-	0	7	\$	0	2	2	0
	TOTAL COLIFORM MF	7	5	0	6	-	0	60	-	0	£	0	0	7	0	0	2	0	0
	T COLIFORM BCKGRD MF	2	2	0	6	4	0	40	-	0	Ļ	0	0	7	5	0	2	0	0
*TOTAL SCAN BACTERIOLOGICAL	LOGICAL	21	17	0	27	13	0	24	5	0	M	-	0	21	10	0	Ŷ	~	C
*TOTAL GROUP BACTERIOLOGICAL	OLOGICAL	21	17	0	27	13	0	24	5	0	£	-	0	21	10	0	0	~	0
	******					8 5 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9													
CHEMISTRY (FLD)	FLD CHLORINE (COMB)	٣	0	0	6	6	0	15	15	0	2	2	0	14	13	•	~	2	0
	FLD CHLORINE FREE	-	0	0	0	6	0	15	15	0	2	2	0	14	14	0	4	7	0
	FLD CHLORINE (TOTAL)		0	0	6	6	0	16	16	0	2	2	0	12	12	0	4	7	0
	FLD PH	۰	•	0	6	6	0	15	15	0	2	2	0	14	14	0	7	7	0
	FLD TEMPERATURE	60	60	0	7	7	0	16	16	0	2	2	0	13	13	0	4	7	0
	FLD TURBIDITY	6	6	0	6	6	0	12	12	0	2	2	0	4	4	0	2	2	0
*TOTAL SCAN CHEMISTRY (FLD)	Y (FLD)	29	26	0	52	52	0	89	89	0	12	12	0	71	20	0	20	20	0
CHEMISTRY (LAB) ALKALINITY	ALKALINITY	6	6	0	6	6	0	16	16	0	2	2	0	13	13	0	4	4	0
	CALCIUM	6	6	0	6	6	0	16	16	0	2	2	0	14	14	0	4	4	0
	CYANIDE	6	0	0	6	0	F	80	0	0	-	0	0	7	0	0	2	0	0
	CHLORIDE	6	6	0	6	6	0	16	16	0	2	2	0	13	13	0	4	4	0
	COLOUR	6	6	0	6	6	0	16	16	0	2	2	0	13	13	0	4	4	0
	CONDUCTIVITY	6	6	0	6	6	0	16	16	0	2	2	0	13	13	0	4	4	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY

		SITE																
SCAN	PARAMETER	TOTAL	RAM TOTAL POSITIVE TRACE	TRACE		TREATED L POSITIVE	TRACE	S TOTAL F	SITE 1 POSITIVE 1	TRACE	SITE 3 TOTAL POSITI	3 ITIVE TR	ACE	TREATED SITE 1 SITE 3 SITE 2 SITE 4 TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE	re trace	S TOTAL	SITE 4 POSITIVE	TRACE
CHEMISTRY (LAB)	FLUORIDE	6		m		5	0	16	9 9 0 16 16	0	2	2	•	13 1	13 0	4	7	0
	HARDNESS	0	5	0	5	6	0	16	16	0	2	2	0	14 1	0 7	4	4	0
	IONCAL	6	2	0	5	6	0	16	16	0	2	2	0	14 1	3 0	4	4	0
	LANGELIERS INDEX	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MAGNESIUM	6	5	0	6	6	0	16	16	0	2	~	0	14 1	14 0	4	4	0
	NO100S	6	5	0	0	6	0	16	16	0	2	2	0	14 1	14 0	4	4	0
	AMMONIUM TOTAL	0	r-1	2	5	-	2	16	2	2	2	0	2	13	2 7	4	2	2
	NITRITE	6	9	-	6	-	9	16	4	1	2	0	0	13	0 11	4	-	м
	TOTAL NITRATES	•	5	0	6	6	0	16	16	0	2	2	0	13 1	13 0	4	4	0
	NITROGEN TOT KJELD	6	5	6	6	6	•	16	16	0	2	~	0	14 1	14 0	4	4	0
	РН	0	5	0 6	6	6	0	16	16	0	2	2	0	13 1	13 0	4	7	0
	PHOSPHORUS FIL REACT	6	4	2	\$	4	4											
	PHOSPHORUS TOTAL	0	5	9 0	6	m	9											
	SULPHATE	6	6	0	6	•	0	16	16	0	2	~	0		14 0	4	. 7	0
	TURBIDITY	6	6	0	6	6	0	16	16	0	2	2	0	13 1	13 0	4	4	0
*T <mark>ot</mark> al scan chemistry (lab)	Y (LAB)	180	156	14	180	144	22	280	251	18	35	30	2	235 203	3 18	20	63	5
METALS SILVER	SILVER	6	0	2	6	0	3	16	0	4	2	0	-	14	0 3	7	0	2
	ALUMI NUM	6	5	•	6	6	0	16	16	0	2	2	0	14 1	4 0	4	7	0
	ARSENIC	6	ry.	7	6	0	0	16	0	16	2	0	2	14	0 13	4	0	4
	BARIUM	6	5	•	6	6	0	16	16	0	2	2	0	14 1	14 0	7	7	0
	BORON	6	ru	7	6	0	0	16	2	14	~	0	2	14	0 14	4	-	m
	BERYLLIUM	6	0	4	6	0	2	16	0	м	2	0	0	14	0 5	4	0	1

SUMMARY TABLE OF RESULTS (1989)

		SITE																	
			RAW		TREATED	TED		SITE 1	-		SITE 3	m		SITE 2			SITE 4		
SCAN	PARAMETER	TOTAL	TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE	I RACE	TOTAL PC	SITIVE	TRACE	TOTAL POS	ITIVE TR	ACE T	OTAL POSI	TIVE TR	ACE 1	TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE	VE TRA	CE TO	TAL POSITI	VE TRA	CE .
METALS	CADMIUM	0	0	~	6	0	~	16	0	4	2	0	0	14	0	-	4	0	N
	COBALT	6	0	6	6	0	8	16	0	15	2	0	2	14	0	14	4	0	4
	CHROMIUM	6	7	0	6	-	4	16	2	7	2	0	~	14	0	7	4	٢	-
	COPPER	6	0	-	6	9	m	16	16	0	2	2	0	14	14	0	4	4	0
	IRON	6	8		6	2	7	16	9	10	2	0	2	14	5	6	4	ŝ	-
	MERCURY	6	0	2	6	0	m	8	1	2	1	0	0	7	0	2	2	0	0
	MANGANESE	6	8	-	6	6	0	16	16	0	2	2	0	14	14	0	4	4	0
	MOLYBDENUM	6	0	0	6	1	8	16	F	15	2	0	2	14	•	13	4	0	4
	NICKEL	6	0	8	6	0	9	16	м	10	2	0	~	14	m	89	4	0	4
	LEAD	6	7	2	6	m	4	16	14	2	2	2	0	14	13		4	4	0
	ANTIMONY	6	8	-	6	6	0	16	14	2	2	2	0	14	12	2	4	4	0
	SELENIUM	6	0	m	6	0	٣	16	0	2	2	0	~	14	0	2	4	0	3
	STRONT LUM	6	6	0	6	6	0	16	16	0	2	2	0	14	14	0	4	4	0
	TITANIUM	6	6	0	6	6	0	16	16	0	2	2	0	14	14	0	4	4	0
	THALLIUM	6	0	4	6	0	-	16	0	9	2	0	0	14	0	2	4	2	0
	URANIUM	6	2	7	6	0	2	16	0	9	2	0	2	14	•	4	4	0	0
	VANAD I UM	6	7	~	6	6	0	16	15	-	2	2	0	14	12	2	4	4	0
	ZINC	6	8	-	0	6	0	16	16	0	2	2	0	14	14	0	4	4	0
*TOTAL SCAN METALS		216	103	5	216	85	11	376	173	122	17	20	19	329		105		47	30
*TOTAL GROUP INORGANIC & PHYSICAL	IC & PHYSICAL	425	285	87	448	281	8	745	513	140	76	62	21		418 1	23	184	130	35
CHLOROAROMATICS HEXACHLOROBUTADIE	HEXACHLOROBUTAD I ENE	9	0	0	8	0	0	7	0	0		0	0	5	0	0	2	0	0
	123 TRICHLOROBENZENE	\$	0	0	00	0	0	7	0	0	-	0	0	5	0	0	2	0	0

TABLE 4

SUMMARY TABLE OF RESULTS (1989)

		SITE																
SCAN	PARAMETER	TOTAL POS	RAU SITIVE TR	ACE T	TREATED OTAL POSIT	IVE TRAC	E TOTA	RAN TREATED SITE 1 SITE 3 SITE 2 SITE 4 TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE	TRACE	SI TOTAL PI	SITE 3 POSITIVE TR	ACE TO	SITE 2 DTAL POSITI	2 TIVE TR/	ACE TO	SITE 4 DTAL POSIT	4 ITIVE TR/	B
CHLOROAROMATICS	1234 T-CHLOROBENZENE	ş	0	•	60	0		7 0	•	-	0	0	\$	•	•	2	٥	0
	1235 T-CHLOROBENZENE	9	0	0	80	0	0	7 0	0	-	0	0	s	0	0	2	0	0
	124 TRICHLOROBENZENE	9	0	0	8	0	0	7 0	0	-	0	0	s	0	0	2	0	0
	1245 T-CHLOROBENZENE	9	0	0	8	0	0	7 0	0	-	0	0	s	0	0	2	0	0
	135 TRICHLOROBENZENE	9	0	0	8	0	0	7 0	0	-	0	0	s	0	0	2	0	0
	HCB	9	0	0	8	0	0	7 0	0	-	0	0	s	0	0	2	0	0
	HEXACHLOROETHANE	9	0	0	80	0	0	7 0	0	-	0	0	5	0	0	2	0	0
	OCTACHLOROSTYRENE	9	0	0	8	0	0	7 0	0	-	0	0	5	0	0	2	0	0
	PENTACHLOROBENZENE	9	0	0	80	0	0	7 0	0	-	0	0	2	0	0	2	0	0
	236 TRICHLOROTOLUENE	9	0	0	8	0	0	7 0	0	-	0	0	5	0	0	2	0	0
	245 TRICHLOROTOLUENE	9	0	0	8	0	0	7 0	0	-	0	0	5	0	0	2	0	0
	26A TRICHLOROTOLUENE	9	0	0	80	0	0	7 0	0	-	0	0	s	0	0	2	0	0
*TOTAL SCAN CHLORDAROMATICS	OWATICS	78	0	0	112	0	0	98 0	0	14	0	0	02	0	0	28	0	0
	NI DODRHENDIS 234 TELCHI DODRHENDI 1 0 0 1 0	-	c	-			0	J										1
	2345 T-CHLOROPHENOL	-	0	0	-	0	. 0		•••	•	•	•						•
	2356 T-CHLOROPHENOL	-	0	-	F	0	0	•	•							•		
	245-TR1CHLOROPHENOL	-	0	0	F	0	0	•	•	•						,		
	246-TR1CHLOROPHENOL	-	0	-	-	0	-	•	•	•							•	
	PENTACHLOROPHENOL	-	0	0	-	0	0	•	•	•	•					•		·
*TOTAL SCAN CHLOROPHENOLS	ENOLS	9	0	2	9	0	-	0 0	0	0	0	0	0	0	0	0	0	0

5	1	2
;	1	2
Î		1

		SILE																	
			RAU			TREATED			SITE 1			SITE 3		SITE 2	~		SITE 4	5	
SCAN	PARAMETER	TOTA	L POSITIV	'E TRA	CE TO	ITAL POSIT	I VE TRA	CE TO	ITAL POSITIV	VE TRA(E TOT	AL POSITIV	/E TRACE	TOTAL POSITIVE TRACE	LVE T	RACE 1	OTAL POSI	TIVE TR	ACE
PAH	PHENANTHRENE		80	0	0	6	0	0							•	•		•	•
	ANTHRACENE		8	0	0	6	0	0					•						
	FLUORANTHEME		8	0	0	6	0	0					•		•	•			
	PYRENE		8	0	0	6	0	0					•			•		•	
	BEWZO(A)ANTHRACENE		83	0	0	6	0	0								•		•	
	CHRYSENE		8	0	0	6	0	0							•				
	DIMETH. BENZ(A)ANTHR		2	0	0	2	0	0					•		•		•		
	BENZO(E) PYRENE		8	0	0	6	0	0								•			
	BENZO(B) FLUORANTHEN		8	0	0	6	0	0					•		•				
	PERYLENE		8	0	0	6	0	0					•		•				
	BENZOCK) FLUORANTHEN		8	0	0	6	0	0					•		•			•	
	BENZO(A) PYRENE		2	0	0	2	0	0					•			•	٠		
	BENZO(G,H,I) PERVLEN		80	0	0	6	0	0					•					•	•
	DIBENZO(A, H) ANTHRAC		8	0	0	6	0	0								•			•
	INDENO(1,2,3-C,D) PY		8	0	0	6	0	0							•	•			
	BENZO(B) CHRYSENE		8	0	0	6	0	0						•	•	•		•	
	CORONENE		8	0	0	6	0	0							•	•			
*TOTAL SCAN PAH		124	4	0	0	139	0	0	0	0	0	0	0 0	0	0	0	0	0	0
PESTICIDES & PCB	ALDRIN		6		0	8	0	0	7	0	0	-	0 0	5	0	0	2	0	0
	ALPHA BHC		6	0	F	8	0	2	7	0	-	-	0	2	0	-	2	0	0
	BETA BHC		6	0	0	8	0	0	7	0	0	-	0	2	0	0	2	0	0
	LINDANE		6	0	0	8	0	0	7	0	0	-	000	5	0	0	2	0	0

SUMMARY TABLE OF RESULTS (1989)

TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE 0 0 SITE 4 ~~~~~ NN 0 0 0 0 00 0 0 00 0 0 0 0 0 0 0 0 SITE 2 5 ŝ ŝ 5 5 10 5 ιO. 0 0 00 SITE 3 -- - -. -TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE 00 0 0 0 000 SITE 1 ~ N N NNN 0 0 0 0 TREATED m 80 60 0 0 0 0 0 00 0 0 . . 0 0 0 0 0 0 0 0 0 0 0 RAU -0 -0 5 5 \$ 5 5 -0 5 5 5 **9**0 5 SITE ENDOSUL FAN SULPHATE HEPTACHLOR EPOXIDE DES ETHYL SIMAZINE **D-ETHYL ATRAZINE** ALPHA CHLORDANE GAMMA CHLORDANE ENDOSULFAN 11 METHOXYCHLOR ENDOSULFAN 1 OXYCHLORDANE HEPTACHLOR PARAMETER CYANAZINE PROMETONE DIELDRIN PROPAZINE **METRINE** ATRAZINE ATRATONE ENOR IN OPDDT PDDE PD0T MIREX 80 8 PESTICIDES & PCB SCAN

		SITE	RAW		TREATED	ED		SITE 1		SITE 3	m		SITE 2		1	SITE 4		
SCAN	PARAMETER	TOTAL P	OSITIVE	TRACE	TOTAL PO	SITIVE TRAC	E 101	TOTAL POSITIVE TRACE	TRACE	TOTAL POS	TIVE TR	ACE T	OTAL POSIT	TVE TRA		TAL POSI	1 VE 185	3
PESTICIDES & PCB	PROMETRYNE	80	0	0	8	0	0	4 0	0				2	0	0	2	0	0
	METRIBUZIN (SENCOR)	8	0	0	80	0	0	4 0	0				2	0	0	2	0	0
	SIMAZINE	40	0	0	80	0	0	4 0	0				2	0	0	2	0	0
	ALACHLOR	80	0	0	8	0	0	4 0	0				2	0	0	2	0	0
	METOLACHLOR	80	0	0	8	0	0	4 0	0				2	0	0	2	0	0
*TOTAL SCAN PESTICIDES & PCB	ES & PCB	230	0	-	2772	0	2	199 0	-	21	0	0	131	0	-	68	0	0
PHENOLICS	PHENOL ICS	6	6	0	6	2	2	•										
*TOTAL SCAN PHENOLICS	S	6	6	0	6	7	2	0 0	0	0	0	0	0	0	0	0	0	0
				•														1
SPECIFIC PESTICIDES	TOXAPHENE	9	0	0	8	0	0	7 0	0	-	0	0	5	0	0	2	0	0
	2,4,5-1	-	0	0	-	0	0	•	•		•							
	2,4-0	-	0	0	-	0	0	•	•				•					
	2,4-DB	-	0	0	1	0	0	•	•		•				,		•	•
	2,4 D PROPIONIC ACID	0	0	0	0	0	0	•	•				•					•
	DICAMBA	-	0	0	-	0	0	•	•	•								
	P1CHLORAM	0	0	0	0	0	0		•		•							
	SILVEX	-	0	0	-	0	0	•	•			•						
	DIAZINON	-	0	0	-	0	0	•	•	,	•	•					•	•
	DICHLOROVOS	٢	0	0	-	0	0	•	•								•	·
	CHLORPYRIFOS	F	0	0	-	0	0		•	•								

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY

		SITE																
SCAN	PARAMETER	TOTAL	RAM TOTAL POSITIVE TRACE	/E TRAC	E 10	TREATED	IVE TR/	ACE TI	SITE 1 DTAL POSITI	VE TRACE	SIT TOTAL PO	SITE 3 POSITIVE T	RACE	TREATED SITE 1 SITE 3 SITE 2 SITE 4 TRACE TOTAL POSITIVE TRACE	E TRACE	SITE 4 TOTAL POSITI	4 111VE T	RACE
SPECIFIC PESTICIDES	ETHION	-		0	0	-	•	0			•	•		0				
	AZINPHOS-METHYL	-		0	0	-	0	0		•	•		•	•	•	•	•	
	MALATHION			0	0	-	0	0		•		•	•				•	
	MEVINPHOS			0	0	-	0	0		•		•	•		•	•	•	
	METHYL PARATHION	-		0	0	-	0	0		•		•	•	•			•	
	METHYLTRITHION	-		0	0	-	0	0		•		•	•		•	•	•	
	PARATHION	-		0	0	-	0	0		•	•	•	•		•		•	
	PHORATE			0	0	۰	0	0		•	•	•			•		•	
	RELDAN	-		0	0	٦	0	0		•	•	•	•		•	•	•	
	RONNEL			0	0	t-	0	0		•					•		•	
	AMINOCARB	0	_	0	0	0	0	0		•	•	•	•		•	,		
	BENONYL	0	_	0	0	0	0	0		•			•		•		•	
	BUX	0	_	0	0	0	0	0		•		•	•		•	•	•	
	CARBOFURAN			0	0	0	0	0		•		•	•		•		•	•
	CICP			0	0	0	0	0		•		•	•	•	•		•	
	DIALLATE			0	0	0	0	0		•	•				•		•	•
	EPTAM			0	0	0	0	0		•	•	•	•		•	•	•	
	IPC			0	0	0	0	0		•	•		•		•		•	•
	PROPOXUR			0	0	0	0	0		•			•		•			
	CARBARYL	-	_	0	0	0	0	0			•	•	•	•	•		•	•
	BUTYLATE	-	_	0	0	0	0	0		•	•	•	•	•	•		•	•
*TOTAL SCAN SPECIFIC PESTICIDES	PESTICIDES	32		0	0	26	0	0	7	0	-	0	0	2	0	2	0	0
VOLATILES BENZENE	BENZENE		0	0	0	6	0	-	eo	0	1	0	0	6	0 0	2	0	0

SCAN PARAMETER VOLATILES TOLUENE ETHATUBENZENE P-XYLENE M-XYLENE O-XYLENE 0-XYLENE 1, 10LOHOOGENAVLENE METAYLENE METAYLENE METAYLENE METAYLENE METAYLENE METAYLENE	TOTA	m v v	-	INTERVIEW OF TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE TOTAL POSITIVE TRACE	TVF TDA		2110		2	2		•	1				
		TOTAL POSITIVE TRACE	TRACE			CE TOT.	AL POSITIV	E TRACI	E TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL POS	TIVE T	RACE
		0 6	0	6	0	5	60	0	5 1	3	-	Ŷ	0	~	2	0	0
P-XYLENE P-XYLENE O-XYLENE O-XYLENE 1, 1 OLGULOROETHYL HETHYLENE CHORDO		0	0	6	0	£	8	0	-	0	0	9	0	-	2	0	-
M-XYLEME O-XYLEME STYREME 1,1 010HLOROEHYL METHYLEME CHLORID		0	0	6	0	0	8	0	1	0	0	9	0	0	2	0	0
O-XYLEME STYREME 1,1 DICHLOROETHYL METHYLEME CHLORID	2.	0	0	6	0	0	8	0	1	5	0	9	0	0	2	0	0
STYREME 1,1 DICHLOROETHYL METHYLEME CHLORID		6	0	6	0	0	8	0	1)	0	9	0	-	2	0	0
1,1 DICHLOROETHYL METHYLENE CHLORID		6	-	6	0	8	8	0	5 1)	-	9	0	2	2	0	2
METHYLENE CHLORID	ENE	0	0	6	0	0	8	0	0	_	0	9	0	0	2	0	0
	ų	6	0	6	0	0	8	0	0	_	0	9	0	0	2	0	0
T1, 201CHLOROETHYLENE	ENE	0 6	0	6	0	0	8	0	0		0	9	0	0	2	0	0
1.1 DICHLOROETHANE	ų	0	0	6	0	0	8	0	0)	0	9	0	0	2	0	0
CHLOROFORM	-	0 6	7	6	6	0	8	8	0		0	9	9	0	2	2	0
111, TRICHLOROETHANE	IANE .	0 6	~	6	0	1	8		-	_	0	9	0	1	2	0	0
1,2 DICHLOROETHANE	-	ہ 0	0	6	0	0	8	0	0	-	0	9	0	0	2	0	0
CARBON TETRACHLORIDE	106	0 6	0	6	0	0	8	0	0	-	0	9	0	0	2	0	0
1.2 DICHLOROPROPANE	INE	0	0	6	0	0	8	0	0	-	000	9	0	0	2	0	0
TRICHLOROETHYLENE		ہ 0	0	6	0	0	8	0	0	-	0	9	0	-	2	0	0
D I CHLOROBROMOME THANE	IANE	ہ 0	0	6	8	-	8	2	-		0	9	9	0	2	-	-
112 TRICHLOROETHANE	INE	ہ 0	0	6	0	0	8	0	0	-	0	9	0	0	2	0	0
CHLOROD I BROMOMET HANE	IANE	ہ 0	0	6	0	2	8	0	2 1	-	0	9	0	-	2	0	0
T - CHLOROE THYLENE	-	0 6	0	6	0	-	8	0	-	-	0	9	0	0	2	0	-
BROMOFORM	-	0 6	0	6	0	0	8	0	0	-	0	9	0	0	2	0	0
1122 T-CHLOROETHANE	THE	٥ ٥	0	6	0	0	8	0	0	-	0	9	0	0	2	0	0
CHLOROBENZENE		ہ 0	0	6	0	0	8	0	0	_	0	9	0	0	2	0	0
1,4 DICHLOROBENZENE	INE	ہ 0	0	6	0	0	8	0	1		0 0	9	0	0	2	0	0
1,3 DICHLOROBENZENE	SNE	9 0	0	6	0	0	8	0	0		0	9	0	0	2	0	0

DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY

SUMMARY TABLE OF RESULTS (1989)

SCAN	SITE A REATED SITE 1 SITE 3 SITE 4 SITE 1 SITE 3 SITE 2 SITE 4 SITE 5 SITE 4 SITE 5 SITE 4 SITE 5 SITE 5 SITE 5 SITE 5 SITE 5 SITE 5 SI	SITE TOTAL	SITE RAW TREATED SITE 1 SITE 3 SITE 3 SITE 3 SITE 2 SITE 2 SITE 4	RACE	TRE.	TREATED L POSITIVE TI	RACE	SITE 1 TOTAL POSIT	E 1 SITIVE TF	ACE 1	SITE 3 TOTAL POSITI	3 TIVE TR	ACE T	SITE 2 OTAL POSITI	IVE TR.	ACE T	SIT OTAL PC	SITE 4 POSITIVE T	RACE
VOLATILES	1,2 OICHLOROBENZENE ETHIYENE DIRPOMIDE	<u></u> о о	0 0	0 0	0 0	0 0	0 0	∞ «	0 0	0 0		0 0	0 0	9 9	0 0	0 0	~ ~	0 0	0 0
	TOTL TRIHALOMETHANES	. 0	0		• •	0 00		80	~ ~		-		0 0	\$	• •	0	0	-	-
TOTAL SCAN VOLATILES	0	261	0	1	261	25	23	232	22	20	29	٣	2	174	18	12	58	4	9
*TOTAL GROUP ORGANIC		746	6	14	825	32	28	536	22	21	65	٣	2	380	18	13	156	4	9
		1192	311		101 1300	326	127	1305	240	540 161	162	8	23	1036	446 136	136	346	136	41

TEATED SITE 1 SITE 3 STANDING FREE FLOH STANDING FREE FLOH STAN ICAL 0ET'N LIMIT = 0 GUIDELINE = 0 (A1) 1CAL 0ET'N LIMIT = 0 GUIDELINE = 0 (A1) 1CAL 0ET'N LIMIT = 0 GUIDELINE = 500/ML (A1) 1 1 1 1 1 2 0 0 0				-	WATER TREATMENT PLANT	AHT	10	DISTRIBUTION SYSTEM			
STANDING FREE FLOM STANDING FREE FLOM ICAL DET*W LIMIT = 0 GUIDELINE = 0 (A1)			REATED	SITE 1		SITE 3		SITE 2		SITE 4	
BACTERIOLOGICAL DET W LIMIT = 0 GUIDELINE = 0 (A1) 206 T24 . . . 12 . . . 12 . . . 14 A3C . . 001 . . . 01 . . . 01 . . . 01 . . . 01 . . . 01 . . . 01 . . . 01 . . . 01 . . . 01 . . . 01 . . . 01 . . . 01 . . . 01 . . . 02 . . . 03 . . . 04 . . . 05 . . . 060 . . . 060 . . . 100 . . . 11 <				STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
 Contraction (1) Co	ECAL COLI	BACTERIOLOGIC FORM MF (CT/100ML)	CAL	DET'N L	IMIT = 0	GUIDELINE	= 0 (A1)	8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9			
· · · · · · · · · </td <td></td>											
	APR	296 124						•			
1 0 0 0 0 0 0 1 1124 0 0 0 0 0 1 124 0 0 0 0 0 2000 0 0 0 0 0 0 2000 0 0 0 0 0 2000 0 0 0 0 0 2000 0 0 0 0 0 2000 0 0 0 0 0 2000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAY	12		•		•				•	
. </td <td></td> <td>14 A3C</td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td>		14 A3C					•				
. </td <td>AUG</td> <td>9</td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	AUG	9		•							
. </td <td>SEP</td> <td>BOL</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	SEP	BOL									
) 0ET'N LINIT = 0 CUIOELINE = 500/ML (A1) 37 T24 14 T24 2400 > 4 <=> 2600 > 0 <=> 2600 > 0 <=> 2600 > 0 <=> 2600 > 0 <=> 2600 > 0 <=> 2600 > 0 <=> 2600 > 1 < (124)	00.1	BDL									
) DET'N LINIT = 0 GUIDELINE = 500/ML (A1) 2000 > 2000 > 2000 > 2000 > 14 (724 2000 > 2000 > 2000 > 2000 > 14 (724 2000 > 2000	NON	2			•						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	TANDRD PL	ATE CNT MF ((DET+N L	IMIT = 0	GUIDELINE	= 500/ML (A1)	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	APR		37 124		14 124						23 T
24000 >	MAY		2400 >		<=> *						19
(000) > . 2400 > . 2400 >			24000 >		<=> 0				2400 >		
160	ากก		< 00005		2400 >				24000 >		
63 7	AUG		160		•	•	780		210		
2400 >	SEP		63		7 <=>				3800		
24000 > 20 ↔ 20 ↔ 2 ↔ 2 ↔ 2 ↔ 2 ↔ 2 ↔ 2 ↔ 2 ↔ 2	00.1		2400 >		18	•			24000 >		
2 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 0 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>> 1 <>>1	NON		24000 >		20 <=>				<=> 02		
DETWLIMIT = 0 1724 2 124 0 355 0 0 0 355 0 0 0 350 0 0 0 0 0 350 0 0 0 0 0 350 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DEC		2 <=>		1 <=>				5 <=>		
6000 124 1 124 . 270 A3C 0 . 15000 > 0 A3C . BE 0 A3C .	DTAL COLI	FORM MF (CT/100ML)		DET'N LI	INIT = 0	GUIDELINE	= 5/100ML(A1)			* * * * * * * * * * * * * * * *	• * * * * * * * * * * * * * * * * *
270 A3C 0 15000 > 0 A3C . 8 . 0 A3C .	APR	6000 124	1 124		2 124						0 10
15000 > 0 A3C . 0 A3C .	MAY	270 A3C	0		0						0
0 Å3C		15000 >	0 A3C		BOL				0 A3C		
	JUL		0 A3C		0	•			0 A3C		

DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989

10 2 FREE FLOW SITE 4 STANDING BDL 0 A3C 0 2400 > 2400 > 0 10 24000 > 1060 A3C . . • FREE FLOW DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989 DISTRIBUTION SYSTEM SITE 2 STANDING 0 0 FREE FLOW GUIDELINE = N/A STANDING SITE 3 WATER TREATMENT PLANT 0 124 0 A3C 310 A3C • 0 0 . . 1.1 0 0 0 FREE FLOW DET'N LIMIT = 0 SITE 1 STANDING 0 A3C 0 A3C 0 0 124 0 2400 > 2400 > 0 2400 > 2400 > 2400 > TREATED o o T COLIFORM BCKGRD MF (CT/100ML) 300 <=> 118 A3C 1600 A3C 19000 T24 24uuu ~ 15000 > 45000 A3C 7545 A3C 38000 A3C 40000 > <=> 009 RAU • SITE TYPE OCT NOV JUL AUG SEP OCT DEC AUG SEP å Do МАҮ

			FREE FLOW			.200										.100	.100									.300	.100
		SITE 4	STANDING			.200			•		•	•			- 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	.100	.100	•						•	* 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	.300	.100
686			FREE FLOW					.100	.200	,150	.100	.000	.100	.200	• 4 6 6 6 6 6 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8			.100	.100	.100	.100	.100	.100	.100	* * * * * * * * * * * * * * * * * * * *		•
HAWKESBURY WTP 1	DISTRIBUTION SYSTEM	SITE 2	STANDING	*******		•		.100	.200	.150	.100	.100	.100	.200				.100	.100	.100	.100	.100	.100	.100			•
ILLANCE PROGRAM	DISTRIB		FREE FLOW	1 是是是""						.050							•			.100							
DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989		S11E 3	STANDING FR	医外外 医外外 化化化化 化化化化化化化化化化化化化化化化化化化化化化化化化化	GUIDELINE = N/A					.050					GUIDELINE = N/A		•			.100					GUIDELINE = N/A		
	WATER TREATMENT PLANT		FREE FLOW		= N/A		.100	.150	.050		.200	.150	.100	.300	= W/A	*400	.150	.200	.100		.200	.250	.350	.100	= N/A	.400	.250
	WATE	SITE 1	STANDING		DET'N LIMIT = N/A	.200	.200	.150	.150		.100	.050	.250	.250	DET'N LIMIT = N/A	.100	•	.150	.100		.150	.200	.150	.100	DET'N LIMIT = N/A	.300	.200
		TREATED		ί (FLD)	(.350	.200	.150	.400	.050	.150	.200	.500	.300	~	.050	.200	.300	.100	.500	.500	.500	.400	.350	~	007"	.400
		ERAN		CHEMISTRY (FLD)	E (COMB) (.000				E FREE (•				.000				E (TOTAL) (٠
		SITE	14PE		FLD CHLORINE (COMB) (APR	MAY		JUL	AUG	SEP	0CT	NON	DEC	FLD CHLORINE FREE (APR	MAY		JUL	AUG	SEP	0CT	NON	DEC	FLD CHLORINE (TOTAL) (APR	МАУ

				FREE FLOW		-	•								7.400	7.500									C 000	0000	0.100		•		
			SITE 4	STANDING	********										7.400	7.300									000 3	000 8	0,000		•	•	
989				FREE FLOW	****	.200	.300	.500	•	.100	.200	.300					7.500	7.500	7.000	7.200	7.300	7.200	6.800					13.500	18.000	21.500	20.000
HAWKESBURY WTP 1	DISTRIBUTION SYSTEM		SITE 2	STANDING	* * * * * * * * * * * * * *	.200	.300	.500		.200	.200	.300			•		7.500	7.500	7.000	7.200	7.300	7.200	6.800			•	•	10 500	18.500	20.500	21.000
EILLANCE PROGRAM	DISTRIE			FREE FLOW				.150				•	3.5(A4)			•			7.000				•	(1)			•			22.000	
DRINKING WATER SURVEILLANCE PROGRAM MANKESBURY WTP 1989		F 1110	SHE 3	STANDING FI	" 4 有有有有关,是是是是是是是是是有有有有			.150					GUIDELINE = 6.5-8.5(A4)		•				7.000				•	GUIDELINE = 15 (A1)						24.000	
	WATER TREATMENT PLANT			FREE FLOW		.350	.150		.400	.400	.450	.400	= N/A			7.300	7.300	7.500		6.950	7.300	7.350	6.750	= N/A	2.000	7.500	46 000	000.61	nnc*07	•	20.900
	WATE	ette 1	3116	STANDING		.300	.250		.250	.250	-400	.350	DET'N LIMIT = N/A	000	1.200	7.300	7.300	7.400		6.950	7.300	7.300	6.750	DET'N LIMIT = N/A	6.000	9,000	15 000	003-01	14.200		21.000
		TOEATED				.450	.500	.550	.650	.700	.900	.650		000	1.000	7.700	8.000	7.400	7.600	7.000	8.200	8.500	6.950			7.400	14, 000	10,000	000 20	000.62	20,000
		TE							.000				HSLESS)	2 000	000.1	7.000	7.330	7.800	7.000	7.000	7.300	7.800	7.300	ature (7.500	14 400	00,400	22,000	000.65	20.000
		SITE	TYPE			MAY	JUL	AUG	SEP	OCT	NON	DEC	LETO PH (DMNSLESS)		APK	MAY		JUL	AUG	SEP	0CT	NOV	DEC	FLD TEMPERATURE (APR	MAY		1.1	100	AUG	SEP

DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989

.610 FREE FLOW SITE 4 .670 STANDING 16.500 9.500 3.000 .280 .640 FREE FLOW DISTRIBUTION SYSTEM 17.000 13.500 5.500 .600 S11E 2 .910 STANDING .410 FREE FLOW GUIDELINE = 1.0 (A1) .410 SITE 3 STANDING WATER TREATMENT PLANT 15.500 8.000 5.000 .180 .210 1.000 1.500 .560 .800 FREE FLOW DET'N LIMIT = N/A SITE 1 17.500 9.000 .240 .330 1.000 1.100 4.500 1.200 .590 STAND1NG .820 .360 .660 .230 .250 .250 .210 .360 15.000 5.200 TREATED ~ 19.000 2.900 4.400 4.600 2.300 2.000 1.500 9.700 2.600 15.000 5.200 1.000 RAU FLD TURBIDITY (FTU SITE TYPE DEC JUL AUG SEP OCT NOV DEC 0CT NOV APR

					DRINKING WATER	DRINKING WATER SURVEILLANCE PROGRAM HANKESBURY WIP 1989	LAM HAWKESBURY WT	P 1989		
			-	WATER TREATMENT PLANT	ANT	1510	DISTRIBUTION SYSTEM			
	SITE RAM	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
	түре		STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
	CHEMIS	CHEMISTRY (LAB)		8 9 9 4 4 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9						
ALKALINITY (MG/L	17 (MG/L)		DET'N L	DET'N LIMIT = .200	GUIDELINE =	GUIDELINE = 30-500 (A4)				
APR	32.900	36.200	35.900	35.600					35.800	35.800
МАҮ	23.500	27.700	25.000	25.800		•			25.000	27.000
	24.100	28.800	27.600	27.300	•		27.200	27.300		
JUL	25.000	24.200	27.300	26.600			26.400	26.600		•
AUG	22.400	26.100			21.100	21.000	23.000	20.700		•
SEP	21.900	20.900	21.300	20.600			22.800	SII		•
DCT	21.200	26.900	25.300	25.200	•		25.200	25.300		•
NON	31.100	37.400	30.900	30.900			31.100	30.600		•
DEC	28.800	19.900	10.200	6.400	•		15.000	14.400		
CALCIUM (MG/L	(MG/L)		DET'N L	DET'N LIMIT = .100	GUIDELINE = 100 (F2)	100 (F2)				
APR	11.800	20.200	20.200	20.000	•	•			19.800	20.000
MAY	0.000	17.000	16.200	16.400		•	•		16.200	16.600
	9.200	16.800	17.000	16.400	•	•	16.200	16.200		
JUL	0.400	16.200	17.400	17.400	•	•	17.400	17.600	•	
AUG	8.200	15.600	•		14.800	14.400	15.800	15.600	•	•
SEP	8.000	14.200	14.200	13.600	•	•	14.600	14.800	•	•
0CT	8.600	17.600	16.600	16.400	•		16.600	16.200		•
NON	12.400	20.000	19.600	19.600			19.800	19.600		•
DEC	14.000	17.700	15.000	15.200	•		15.900	15.600		
CYANIDE (MG/L	(MG/L)	8 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	DET'N L	DET'N LIMIT = 0.001	GUIDELIME = .200 (A1)	.200 (A1)				
APR	BOL	BDL		BOL						BDL
MAY	BOL	BDL		BDL		•	•			BDL

SITE	DAL	TREATED	6176		F 1710					
TYPE	K A W	INCALED	2116		5115 3		2 115		S11E 4	
			STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
MAY	BDL	BDL		BDL				BOL		
JUL	BOL	BDL		BDL			•	BOL		
AUG	BOL	BDL				BDL		BDL		
SEP	BDL	BDL		801	•			BDL		
OCT	BDL	BDL		801				BOL		
NOV	BDL	.002 <t< td=""><td></td><td>BOL</td><td></td><td></td><td></td><td>BOL</td><td></td><td></td></t<>		BOL				BOL		
DEC	BOL	80L	•	801	•	•	•	BOL		
CHLORIDE (Mu/L	L J		DET'N LI	0ET'M LIMIT = .200	GUIDELINE = 250 (A3)	250 (A3)				
APK	6.600	6.900	6.900	6.YUU					6.900	6.800
MAY	2.600	4.000	4.000	3.700					3.900	3.700
	3.100	4.900	4.700	5.000			4./UU	υυ ς ,		
JUL	2.800	4.500	4.500	4.400			4.500	4.500		
AUG	3.100	5.500			5.600	5.600	5.400	5.500		
SEP	3.200	5.300	5.200	5.300	•		5.200	115		
OCT	3.200	5.100	5.200	5.100			5,000	5.000		
NOV	5.700	7.100	7.100	7.100			7.100	7.200		
DEC	3.800	5.300	5.200	5.100			5.000	5.000		
COLOUR (HZU	^		DET'N LI	DET'N LIMIT = .5	GUIDELINE = 5.0 (A3)	5.0 (A3)				
APR 3	38.500	6.500	7.000	6.500					6.500	6.500
MAY 3	35.000	4.500	5.000	5.000					5.000	4.500
4	40.000	7.000	6.000	5.500			6.500	6.000		
JUL 3	35.500	4.500	7.000	6.500			5.500	6.000		
AUG 3	30.000	4.000			4,000	3.500	3.500	3.000		

			3	WATER TREATMENT PLANT	NUT	015	DISTRIBUTION SYSTEM			
SITE	RAW	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
TYPE			STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
00.1	26.000	3.000	3.000	3.500			3.500	3.500		
	35.000	10.000	4.500	5.000			5.500	4.500		
	38.000	5.500	4.000	3.000			5.000	5.000		
CONDUCTIVITY (UMHO/CM	(UMHO/CM)	4 3 3 4 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	DET'N LIMIT = 1	11 = 1	GUIDELINE = 400 (F2)	00 (F2)				
APR	115	168	167	166					167	167
MAY	83	137	134	132					134	134
	82	133	131	132		•	130	130		
JUL	74	118	122	121			122	122		•
AUG	78	124	•		125	125	132	131		•
SEP	17	114	118	117			120	115		•
0CT	11	130	128	128		•	126	126		•
NON	109	158	156	156			157	156		•
DEC	95	129	118	119	•	•	119	118	•	•
FLUORIDE (MG/L	,г)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DET'N LIN	DET'N LIMIT = .01	GUIDELINE = 2.400 (A1)	.400 (A1)	****			
APR	.060	1.020	1.000	1.000				•	1.000	1.000
MAY	.060	1.060	1.160	1.140					1.180	1.220
	.060	1.020	1.180	1.220			1.100	1.120		
JUL	.060	.240	.380	.300			.400	.360		•
AUG	.020 <t< td=""><td>.860</td><td></td><td></td><td>.840</td><td>.840</td><td>.820</td><td>.700</td><td></td><td>•</td></t<>	.860			.840	.840	.820	.700		•
SEP	090.	.920	1.040	1.060			086.	115	•	•
OCT OCT	1> 070.	.880	.940	1.020			.760	.860		•
NON	.060	1.180	.300	.320			.700	.500	•	
DEC	1¢0 ≼T	RUN	900	640			52.0	240		

ITE STE 2 STE 4 NUL STE 1 STE 4 TOTAL STE 1 STE 4 STE 1 STE 1 STE 1 STE 1 STE 1 STE 1 STE 1 STE 2 STE 2 STE 2 STE 2 <				-	WATER TREATMENT PLANT	ANT	015	DISTRIBUTION SYSTEM			
TANDING FRE FLOW TANDING FLOW <th></th> <th></th> <th>TREATED</th> <th>SITE 1</th> <th></th> <th>SITE 3</th> <th></th> <th>SITE 2</th> <th></th> <th>SITE 4</th> <th></th>			TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
) Def ! 4 [14] 1 = .500 Def [100] 61 000 52 000 52 000 51 000		TYPE		STANDING	FREE FLOW	STANDING	FPEE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
62.000 62.000 61.000 51.000<	HARDNESS	Ŷ		DET'N L	IMIT = .500	GUIDELINE = 8(0-100 (A4)				
53.000 51.000 <td>APR</td> <td>41.000</td> <td>62.000</td> <td>62,000</td> <td>61.000</td> <td></td> <td></td> <td></td> <td></td> <td>61.000</td> <td>61.000</td>	APR	41.000	62.000	62,000	61.000					61.000	61.000
51,000 51,000 52,000 52,000 53,000 53,000 53,000 47,000 51,000 62,000 43,000 43,000 53,000 53,000 47,000 51,000 52,000 53,000 54,000 54,000 54,000 47,000 61,000 62,000 51,000 64,000 54,000 54,000 52,000 61,000 62,000 54,000 54,000 54,000 54,000 52,000 61,000 62,000 54,000 54,000 54,000 54,000 52,000 61,000 62,000 54,000 54,000 54,000 54,000 52,010 61,12 5,306 54,000 54,000 54,000 54,000 51,012 51,02 53,000 54,000 54,000 54,000 51,012 5,126 54,000 54,000 54,000 7,63 9,122 9,126 9,126 54,178 7,63 7,640 1,757 9,242 54,178 7,03 7,441 5,01 64,176 9,242 7,03 7,441 64,3 9,242 54,178 7,03 7,441 5,431 9,242 7,03	MAY	33.000	53.000	51.000	51.000			•	•	51.000	52.000
4,000 53.000 52.000 53.000 </td <td></td> <td>32.000</td> <td>51.000</td> <td>51.000</td> <td>49.000</td> <td></td> <td></td> <td>50.000</td> <td>49.000</td> <td></td> <td></td>		32.000	51.000	51.000	49.000			50.000	49.000		
47.000 4000 4.0.000 4.0.000 4.0.000 5000 4.0.000 50	JUL	32.000	49.000	53.000	52.000	•		52.000	53.000		
4,000 4,000 45,000 5,000 45,000 5,000	AUG	28.000	47.000	•		46.000	45.000	48.000	48.000		•
52.000 52.000 50.000<	SEP	28.000	44.000	44.000	42.000	•		45.000	45.000		
62.000 61.000 62.000 61.000 61.000 51.000<	OCT	29.000	52.000	49.000	49.000			51.000	48,000		
54.700 47.600 48.500 .43.500 .43.500 .43.900 . 0ETW LINT = W/A 0UTOELINE = W/A 0.122 5.303 6.132 5.366 7.667 9.442 9.280 7.67 9.442 9.280 7.687 9.442 9.180 7.687 9.442 9.180 .	NON	43.000	62,000	61.000	62.000			62.000	61.000		
0ETW LINIT = W/A 0UIDELINE = W/A 5.303 6.132 5.366 7.687 9.442 9.286 7.687 9.442 9.286 7.687 9.442 9.286 7.687 9.442 9.286 7.687 9.442 9.286 7.687 9.442 9.286 7.687 9.441 9.756 7.689 9.156 .094 0.797 7.441 9.242 0.79 0.441 9.242 0.79 0.441 9.242 0.79 0.451 9.242 0.70 1.650 5.671 0.70 1.557 4.178 0.70 1.557 4.7178 0.700 1.667 . 0.701 1.653 5.671 0.702 2.368 4.770 0.701 1.654 . 0.701 1.675 . 0.702 1.075 . 0.703 1.077 .	DEC	45.900	54.700	47.600	48.500	•		49.600	48.900	•	•
5.303 6.132 5.306 . <	10NCAL (I	DMNSLESS)	* * * * * * * * * * * *	DET'N L	IMIT = N/A	GUIDELINE = N.	/A				
7.687 9.442 9.200 . . 9.780 . . 9.780 . . 9.780 . . 9.780 . . 9.780 . . 9.780 . . 9.780 . . 9.720 . 0.81 . 0.781 . 0.781 . 0.781 . 0.781 . 0.781 . 0.781 . 0.743 . 0.741 . 0.743 . 0.411 . . 0.441 . 0.441 . 0.441 . 0.441 . 0.441 . 0.441 . 0.441 . 0.441 . 0.441 . 0.441 . 0.441 . 0.4420 . 0.4400 . 0.4400 . 0.4400 . 0.470 0.470 . 0.470 . 0.470 . 0.470 . 0.470 . 0.470 . 0.470 . 0.470	APR	2.802	5.303	6.132	5.366					4.129	6.736
1,733 5,077 .223 . .764 . 1,703 7,649 9,158 . .072 .664 . 7,09 7,649 9,158 . .092 .641 . 7,09 2,441 .643 . .641 . .641 7,00 2,635 .673 .641 . . 9,136 6,685 6,993 . .004 . 9,1050 3,667 . . 9,266 .178 . 5,010 3,669 .4,544 . . .2358 .4,70 . 5,010 3,669 .4,544 . . .2368 .4,70 . 5,010 3,669 .4,544 61114 MA 06114 LIN11 = MA . .0105LINE = MA 633 675 770 633 675 7118 707 . . . 633 675 7107 707	MAY	9.438	7.687	9.442	9.280			•		8.788	7.680
7,805 7,545 9,156 0,8,714 9,242 0.79 9,242 4,203 2,441 9,242 4,203 2,441 9,120 6,665 6,939 9,266 4,176 9,120 6,665 5,671 9,266 4,176 9,245		1.970	1.793	5.077	.223			.972	.768		
079 094 .860 .757 .641 4.203 2.441 .643 98 .000 м/r 9.120 0.685 6.979 984 .000 м/r 9.120 0.685 6.979 9.266 4.178 5.010 3.669 4.456 2.388 .470 5.010 3.669 4.456 2.888 .470 0.1111 2.888 0.1010LINE 2.888 0.6174 0.1021 0.6174 0.6174 1.023	JUL	1,560	7.805	7.649	9.158			8.714	9.242		
4, 203 2, 441 - 643 - 643 - 000 MAF	AUG	2.542	640.			°00°	.860	.757.	.641		
9,120 0.665 6,939 9,266 4,178	SEP	.735	4.203	2.441	.643	•		986.	. 000 MAI		•
5.000 1.050 5.671 0.325 3.322 5.010 3.689 4.456 2.868 4.70	00.1	6.933	9.120	6.685	6.939		•	9.266	4.178		
5.010 3.689 4.454 . 2.868 4.70	NON	6.000	5.059	1.050	5.671		•	6.325	5.632		
DET W LIWIT = W/A GUIDELINE = W/A 633677674	DEC	2.102	5.010	3.689	4.454			2.868	.470	•	
-1.035 677 672 672 672 672 672 672 672 672 672 675	LANGELIE	RS INDEX (DMNSLES	S)	DET W L	IMIT = N/A	GUIDELINE = N	/A				
-1.274851955975975	APR	-1.035	683	677	674					- , 707	692
-1.553 -1.028 -1.080 -1.1111.107	MAY	-1.274	851	- ,955	579					- , 955	911
		-1.553	-1.028	-1.080	-1.111			-1.107	-1.055		

INDLE J

DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989

			FREE FLOW							人名德德马 医黄素素 医皮肤	2.800	2.600	•				•		٠		6.600	3.800					•
		SITE 4	STANDING						•	6 2 7 6 8 8 8 8 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8	2.800	2.500							•		6.000	3.800					•
1989			FREE FLOW	-1.167	-1.252		987	835	-1.674				2.100	2.100	2.200	2.000	1.900	3.000	2.400		•		3.600	3.400	3.800	4.000	4.000
M HAWKESBURY WTP	DISTRIBUTION SYSTEM	SITE 2	STANDING	-1.205	-1.152	-1.294	-1.028	- *844	-1.679		•		2.100	2.100	2.200	2.100	2.200	3.000	2.400	****			3.600	3.600	3.800	4.000	4.200
RVEILLANCE PROGRA	DISTR		FREE FLOW	•	-1.248					(F2)	•		•		2.200					0 (C3)					4.000		
DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989	-	SITE 3	STANDING		-1.284					GUIDELINE = 30 (F2)					2.100					GUIDELINE = 200 (C3)					4.000		
	WATER TREATMENT PLANT		RPEE FLOW	-1.172		-1.428	-1.014	821	-2.718	T = .050	2.700	2.500	2.000	2.200		2.000	2.000	3.000	2.550	T = .200	6.200	3.800	3.600	3.400		4.000	4.400
	WAT	SITE 1	STANDING	-1.151		-1.365	-1.027	801	-2.181	DET'N LIMIT = .050	2.800	2.500	2.200	2.200		2.100	1.900	2.900	2.500	06T*N LIMIT = .200	6.200	4.000	3.800	3.400	•	4.200	4.400
		TREATED		-1.262	-1.049	-1.341	896	- *640	-1.234		2.700	2.600	2.200	2.100	1.900	2.100	1.900	2.900	2.600		6.200	3.800	3.800	3.400	3.600	4.000	4.400
		SITE RAU	TYPE	-1.615	-1.443	-1.523	-1.546	-1.085	-1.120	(//)	2.800	2.600	2.200	2.000	1.900	2.100	1.900	3.000	2.650	(/r)	5.200	2.800	2.800	2.800	2.800	3.200	3.400
		S	E	JUL	AUG	SEP	0CT	NON	DEC	MAGNESIUM (MG/L	APR	MAY		JUL	AUG	SEP	OCT	NON	DEC	SODIUM (MG/L	APR	MAY		JUL	AUG	SEP	0CT

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× 700° .003 < .002 .142 FREE FLOW .004 ≺T .002 <T .006 SITE 4 .126 STANDING .001 <T .002 <T .002 <T .008 <T .001 <T .002 <T .002 <T T> 000. .002 <T 11S BDL .024 BOL 1 I S 5.200 1.400 FPFE FLOW DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989 .002 <T BDL .020 .004 ×T .004 <T .003 <T .006 <T .004 <⊺ .002 <T .001 <T .003 <T DISTRIBUTION SYSTEM 80L 80L BOL SITE 2 1.700 STANDING ,002 <T BOL EPEE FLOW GUIDELINE = 1.000 (A1) GUIDELINE = .05 (F2) .002 <T SITE 3 BOL STAND ING WATER TREATMENT PLANT .002 <T BDL .001 <T .002 <T .002 <T .006 <T .002 <T .001 ×I ,008 <T .002 <T 004 <T 1.400 .016 .005 006 5.600 .012 . 130 FPEF FLOW DET*M LIMIT = 0.001DET'N LIMIT = 0.002 .006 ≮T .002 <T .006 <T .001 <T .004 <T .002 <T .001 <T .003 <7 5.200 1.700 .128 .010 .030 .006 .005 SITE 1 012 BOL BDL STANDING .003 <T .005 .002 ≺T BDL .002 <T .002 <T .002 <T .008 <T .006 <T .004 <T .001 <T .003 <T .002 <T TREATED 6.000 1.900 .146 BDL BOL BOL BOL $\overline{}$.004 ≺T .008 <T .006 <T T> 000. T> 200. .004 <T AMMONIUM TOTAL (MG/L .005 .007 .019 RAW .500 .180 BDL .016 .026 .046 .012 .010 4.800 ^ WITRITE (MG/L SLTE TYPE AUG 001 NOM NON DEC AUG SEP OCT NDV DEC MAY APR MΑΥ JUL APR ľ DEC

GUIDELIME = 10.000 (A1)

DET'N LIMIT = .020

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TOTAL NITRATES (MG/L

\$	
۳.	
AB.	
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SITE SITE <th< th=""><th></th><th></th><th></th><th>3</th><th>WATER TREATMENT PLANT</th><th>ANT</th><th>DIS</th><th>DISTRIBUTION SYSTEM</th><th></th><th></th><th></th></th<>				3	WATER TREATMENT PLANT	ANT	DIS	DISTRIBUTION SYSTEM			
FINDING FREE FLOU TANDING FREE FLOU STANDING FLOU STANDING FLOU STANDING FLOU STANDING FTONING FTONING FTONING FTONING FTONING FTANDING	SIT		TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
	È	ų		STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	APR	.455	.435	.430	.425					.430	.425
170 175 170 175 170 175 170 180 180 180 180 180 180 180 180 180 165 166 166 166 166 166 166 166 166 166 166 166 166 166	MAY	.285	.230	.230	.230					.230	.240
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$.200	.170	.175	.170			.175	.180		•
165	JUL	.210	.170	.175	.175			.180	.180		•
117 180 100 10 115 116 116 116 116 1100 <	AUG	.170	.165			.175	.170	.170	.160		•
165 165 160 165 166 160 100 1100	SEP	.205	.175	.180	.180			.175	SIi	•	
.255 .270 .265 .273 .273 . .200 .210 .205 .215 .220 . .100 .210 .205 .215 .220 . .200 .210 .205 . .215 .220 . .100 .170 .010ELINE # // . .215 .220 . .170 .170 .170 .170 . .170 .170 .170 .180 .170 .180 .170 .180 .170 .180 .170 .180 .170 .180 .170 .180 .170 .180 .170 .180 .180	OCT	.200	.165	.165	.160			.155	.165	•	•
200 210 205 .<	NON	.260	.255	.270	.265			.275	.275		
) Del'N LINIT = .020 GUIDELINE = WA .390 <	DEC	.275	.200	.210	.205			.215	.220		•
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	ITROGEN TO	I KJELD (MG/L	~	DET'N LI	MIT = .020	GUIDELINE = 1	4/A				
	APR	.730	.390	¢+.	.370					.400	.390
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	МАҮ	.390	.170	.190	. 1/1					.180	.170
.350 .160 .240 .220 .170 .160 .190 .190 .190 .190 . .300 .200 .170 .200 .180 .170 .160 .170 . .320 .170 .200 .180 .170 .200 .180 . .320 .170 .200 .180 400 .210 .210 .210 .200 .180 . <		N	06+	.230	.170				C + +		,
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	JUL	.350	.160	.240	.220			.190	.190	•	•
.330 .180 .170 .230 .180 .170 .200 .180 .170 .400 .210 .200 .180 .200 .180 .200 .400 .210 .200 .200 .200 .200 .200 .400 .210 .200 .200 .200 .200 .200 .400 .210 .200 .200 .200 .200 .200 .500 .200 .200 .200 .200 .200 .200 .700 .210 .200 .200 .200 .200 .200 .750 7.50 7.50 7.50 7.50 7.50 7.510 7.50 7.50 7.50 7.50 7.50 7.510 7.530	AUG	.360	.200			.170	.160	.180	. 150		•
.320 .170 .200 .180 .20 .200 .180 . .400 .210 .220 .210 .200 .200 .200 . .400 .210 .220 .200 .200 .200 .200 . .400 .210 .270 .200 .200 .200 .200 . .400 .210 .780 .200 .200 .200 . . .400 .210 .780 .200 .200 .200 . . .400 7.540 7.640 7.640 . . 7.500 7.510 . 7.560 7.540 7.540 7.540 . . . 7.500 .	SEP	.330	.180	.170	.230			.180	.170		•
.400 .270 .220 .210 .200 <th< td=""><td>OCT 0</td><td>.320</td><td>.170</td><td>.200</td><td>.180</td><td></td><td></td><td>.200</td><td>. 180</td><td>•</td><td>•</td></th<>	OCT 0	.320	.170	.200	.180			.200	. 180	•	•
.400 .210 .290 .220 .200 .220 .) DET*N LINT = N/A GUIDELINE = 6.5-8.5(Ak) . . 7.830 7.740 7.840 7.860 . . 7.830 7.550 7.860 7.710 . 7.50 7.670 7.560 7.560 7.50 7.50 7.670 .	NON	.400	.270	.220	.210			.200	.200		
) DET*N LINIT = N/A GUIDELINE = 6.5-8.5(A4) 7,750 7.840 7.860 7.860 7.630 7,750 7.850 7.860 7.860 7.610 7.500 7,550 7.850 7.610 7.610 7.610 7.510 7.610 7,560 7.600 7.500 7.500 7.530 7.530 7.530	DEC	•00	.210	.290	.220			-200	.220	•	•
7.74 7.850 7.860 7.860 7.810 <th7< td=""><td>H (DMNSLES</td><td>s)</td><td></td><td>DET'N LI</td><td>MIT = N/A</td><td>CUIDELINE = (</td><td>6.5-8.5(A4)</td><td>- - - - - - - - - - - - - - - - - - -</td><td></td><td></td><td>, , , , , , , , , , , , , , , , , , ,</td></th7<>	H (DMNSLES	s)		DET'N LI	MIT = N/A	CUIDELINE = (6.5-8.5(A4)	- - - - - - - - - - - - - - - - - - -			, , , , , , , , , , , , , , , , , , ,
7.750 7.850 7.910 7.770 7.810 7.701 7.810 7.810 7.520 7.520 7.530 7.810 7.550 7.550 7.800 7.550	APR	7.740	7.840	7.850	7.860					7.830	7.840
7.450 7.660 7.620 7.610 7.620 7.360 7.510 7.540 7.530 7.500	MAY	7.750	7.850	7.810	7.770		•		•	7.810	7.810
7.360 7.510 7.540 7.530 . 2 7.500		7.450	7.660	7.620	7.610			7.620	7.670		•
	JUL	7.360	7.510	7.540	7.530			7.500	7.530		•

			3	WATER TREATMENT PLANT	ANT	DIS	DISTRIBUTION SYSTEM			
SITE	RAW	TREATED	S11E 1		SITE 3		SITE 2		SITE 4	
TYPE			STANDING	FPEE FLOW	STANDING	FPEE FLOW	STANDING	FPEE FLOW	STANDING	FREE FLOW
AUG	2.640	7.710	٠		7.590	079.7	7.660	7.610		
SEP	7.580	7.550	7.520	1.490			7.550	SII		
001	7.540	7.800	7.720	7.740			7.720	7.770	٠	
NOV	7.690	7.870	7.800	7.780			7.750	7.770	•	•
DEC	7.630	7.590	7,000	6.660			7.310	072*2		
HOSPHORUS F	PHOSPHORUS FIL REACT (MG/L	`	DET*N LI	DET'N LIMIT = .0005	GUIDELINE = N/A	N/A				
APR	070°	,006						•		•
MAY	.001 <7	BOL								•
	.002	.001 <t< td=""><td></td><td></td><td></td><td></td><td>•</td><td>•</td><td></td><td>•</td></t<>					•	•		•
JUL	.001 <t< td=""><td>.001 <t< td=""><td></td><td></td><td>•</td><td></td><td>•</td><td></td><td>•</td><td>•</td></t<></td></t<>	.001 <t< td=""><td></td><td></td><td>•</td><td></td><td>•</td><td></td><td>•</td><td>•</td></t<>			•		•		•	•
AUG	.001 <t< td=""><td>.003</td><td>•</td><td>•</td><td>•</td><td></td><td>•</td><td></td><td>•</td><td>•</td></t<>	.003	•	•	•		•		•	•
SEP	.003	.000 <⊺								•
0CT	.001 <t< td=""><td>.001 <t< td=""><td>•</td><td>•</td><td></td><td></td><td></td><td></td><td>•</td><td>•</td></t<></td></t<>	.001 <t< td=""><td>•</td><td>•</td><td></td><td></td><td></td><td></td><td>•</td><td>•</td></t<>	•	•					•	•
NON	.007	°00°	•					•		•
DEC	.001 <t< td=""><td>.003</td><td></td><td></td><td></td><td></td><td>* * *</td><td>* * * * * * * * * *</td><td></td><td></td></t<>	.003					* * *	* * * * * * * * * *		
PHOSPHORUS TOTAL (MG/L	OTAL (MG/L	`	DET'N LI	DET'N LIMIT = .002	GUIDELINE = .40 (F2)	.40 (F2)				
APR	.083	.013					Þ		•	•
MAY	.018	.007 <t< td=""><td>•</td><td>•</td><td>•</td><td>•</td><td></td><td>•</td><td>•</td><td>•</td></t<>	•	•	•	•		•	•	•
	.031	.013	•	•	•				•	
JUL	.021	.007 <t< td=""><td></td><td>•</td><td>•</td><td></td><td></td><td></td><td>•</td><td>•</td></t<>		•	•				•	•
AUG	.022	.008 <t< td=""><td>•</td><td></td><td>•</td><td></td><td></td><td></td><td>•</td><td>•</td></t<>	•		•				•	•
SEP	.020	.008 <t< td=""><td></td><td>•</td><td>•</td><td>•</td><td></td><td>•</td><td></td><td>•</td></t<>		•	•	•		•		•
0CT	.014	.006 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>•</td><td></td><td></td></t<>						•		
NON	.028	.012		•				•	•	

					DRINKING WATER S	URVEILLANCE PROGR	DRINKING WATER SURVEILLANCE PROGRAM HANKESBURY UTP 1989	689		
				WATER TREATMENT PLANT	NT	0151	DISTRIBUTION SYSTEM			
S	SITE RAU	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
-	TYPE		STANDING	FREE FLOW	STANDING	FPEE FLOW	STANDING	FPFE FLOW	STANDING	FREE FLOW
DEC	.014	.005 <t< th=""><th></th><th>1 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8</th><th></th><th>- - - - - - - - - - - - - - - - - - -</th><th>6 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8</th><th>r 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8</th><th></th><th></th></t<>		1 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		- - - - - - - - - - - - - - - - - - -	6 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	r 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		
SULPHATE (MG/L	(//SM)	2 2 3 2 3 2 3 2 3 3 2 3 3 3 3 3 5 5 5 5	DET'N L	DET'N LIMIT = .200	GUIDELINE = 500. (A3)	00. (A3)	化芳子 计子书 医黄疸 医黄疸 医黄疸 医黄疸	* 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4 9 4 1 1 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	
APR	7.340	23,270	23.350	23.330		•	٠	٠	23.440	23.590
MAY	7,390	21.930	21.940	21.690					21.980	22.090
	7.880	21.020	21.130	21.040			21.050	21.030		
JUL	7.230	20.390	20.540	20.590			20.860	20.480		
AUG	7.550	19.370			23.630	23.670	24.920	26.490		
SEP	8.350	20.790	21.770	21.630			21.600	21.880		
001	7.570	20.640	21.050	21.080			20,890	20.870		•
NON	10.250	22.070	28.370	26.560	•	•	26.350	27.160	•	
DEC	10.480	27.000	30.170	33.630			27.870	28.290	٠	
TURBIDITY (FTU	(FTU)		DET'N L	DET'N LIMIT = .02	GUIDELINE = 1.00 (A1)	.00 (A1)				* * * * * * * * * * * * * * * *
APR	30,000	1.310 RRV	3.000 RRV	RV 1.850 RRV					2.800 RRV	1.900 F
MAY	3.400	.460	.750					٠	.920	.530
	7.500	1.500 RRV	1.890 R				1.060 RRV	.560		
JUL	4.700	.370	.800	062*		•	.760	.850		
AUG	2.900	.600			.570	.660	.650	.510		
SEP	2.600	.540	.550	-400			.650	115		
001	2.200	.470	.950	.700			.520	.570	•	•
NON	11.800	12.000 RRV	3.700				1.310	.720	•	
DEC	2.800	1.320 RRV	2.200 RRV	RV 4.300 RRV	•		1.360 RRV	2.100 RRV		

					DRINKING WATER SI	URVEILLANCE PROGI	DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WIP 1989	1989		
				WATER TRE	WATER TREATMENT PLANT		DISTRIBU	DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
			STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
****	METALS									
SILVER (UG/L			DET'N LIM	DET'N LIMIT = .020	GUIDELINE = 50. (A1)	D. (A1)				
APR	.100 <t< td=""><td>,060 <⊺</td><td>1≻ 000 «T</td><td>.100 <t< td=""><td></td><td></td><td></td><td></td><td>1> 070.</td><td>.> 090</td></t<></td></t<>	,060 <⊺	1≻ 0 0 0 «T	.100 <t< td=""><td></td><td></td><td></td><td></td><td>1> 070.</td><td>.> 090</td></t<>					1> 070.	.> 090
MAY	BOL	.040 <t< td=""><td>BDL</td><td>BOL</td><td></td><td></td><td></td><td></td><td>BOL</td><td>BOL</td></t<>	BDL	BOL					BOL	BOL
	.110 <t< td=""><td>.030 <t< td=""><td>T> 060.</td><td>.050 «T</td><td></td><td></td><td>.060 <⊺</td><td>BOL</td><td></td><td></td></t<></td></t<>	.030 <t< td=""><td>T> 060.</td><td>.050 «T</td><td></td><td></td><td>.060 <⊺</td><td>BOL</td><td></td><td></td></t<>	T> 060.	.050 «T			.060 <⊺	BOL		
JUL	BOL	BOL	BOL	BOL			BOL	.080 <t< td=""><td></td><td></td></t<>		
AUG	BOL	80L	•		T> 0%0 .	BOL	BOL	BOL		
SEP	BOL	BOL	BOL	BOL			.030 <t< td=""><td>BOL</td><td></td><td></td></t<>	BOL		
OCT	BOL	80L	BOL	BOL			BOL	BUL		
NON	BOL	BOL	90 L	B0L			BOL	BOL		
DEC	BOL	BOL	BOL	108	٠		BOL	108	•	
VICINI VICINI VICINI	(1/0/)	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	DET'N LIMIT = .050	11 = .050	GUIDELINE = 100.(A4)	00. (A4)				
APR	464.000	139.200	266.800	150.800	5		•		150.800	139.200
MAY	162.400	174.000	220.400	208.800		•			208.800	93.960
	200.000	330.000	260.000	240.000			280.000	190.000		
JUL	240.000	150.000	380.000	350.000	•	•	250.000	300.000		
AUG	120.000	160.000	•		310.000	340.000	390.000	210.000		
SEP	110.000	120.000	130.000	100.000			100.000	67.000		
001	88.000	120.000	140.000	140.000			150.000	130.000	•	
NON	24.000	410.000	260.000	270.000			170.000	96.000		
DEC	120.000	360.000	580.000	1000.000	•		260.000	250.000		
ARSENIC (UG/L	1/JC/	0 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	DET*N LIM	DET*N LIMIT = 0.050	GUIDELINE = 50.0 (A1)	0.0 (A1)	***			
APR	.730 ≮T	.320 <t< td=""><td>.220 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>.350 <t< td=""><td>.160 <≀</td></t<></td></t<></td></t<>	.220 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>.350 <t< td=""><td>.160 <≀</td></t<></td></t<>						.350 <t< td=""><td>.160 <≀</td></t<>	.160 <≀
MAY	.890 <t< td=""><td>.560 <t< td=""><td>.540 <1</td><td>.370 <t< td=""><td>•</td><td></td><td></td><td></td><td>.500 <t< td=""><td>.290 4</td></t<></td></t<></td></t<></td></t<>	.560 <t< td=""><td>.540 <1</td><td>.370 <t< td=""><td>•</td><td></td><td></td><td></td><td>.500 <t< td=""><td>.290 4</td></t<></td></t<></td></t<>	.540 <1	.370 <t< td=""><td>•</td><td></td><td></td><td></td><td>.500 <t< td=""><td>.290 4</td></t<></td></t<>	•				.500 <t< td=""><td>.290 4</td></t<>	.290 4

DRIMKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989

				WATER TREA	WATER TREATMENT PLANT		DISTRIE	DISTRIBUTION SYSTEM		
SITE	RAW	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
TYPE			STAND ING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STAND ING	FREE FLOW
		2 6 6 7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8					12 UCA	.550 <t< th=""><th></th><th></th></t<>		
MAY	1.000 <t< td=""><td>.550 <t< td=""><td>.560 <t< td=""><td>-500 <t< td=""><td></td><td>•</td><td>Let 1</td><td>120 21</td><td></td><td></td></t<></td></t<></td></t<></td></t<>	.550 <t< td=""><td>.560 <t< td=""><td>-500 <t< td=""><td></td><td>•</td><td>Let 1</td><td>120 21</td><td></td><td></td></t<></td></t<></td></t<>	.560 <t< td=""><td>-500 <t< td=""><td></td><td>•</td><td>Let 1</td><td>120 21</td><td></td><td></td></t<></td></t<>	-500 <t< td=""><td></td><td>•</td><td>Let 1</td><td>120 21</td><td></td><td></td></t<>		•	Let 1	120 21		
JUL	1.100	.600 <t< td=""><td>760 <t< td=""><td>.650 <t< td=""><td>• • • •</td><td>T/ OBC</td><td>12 UCC.</td><td>T> 024</td><td></td><td></td></t<></td></t<></td></t<>	760 <t< td=""><td>.650 <t< td=""><td>• • • •</td><td>T/ OBC</td><td>12 UCC.</td><td>T> 024</td><td></td><td></td></t<></td></t<>	.650 <t< td=""><td>• • • •</td><td>T/ OBC</td><td>12 UCC.</td><td>T> 024</td><td></td><td></td></t<>	• • • •	T/ OBC	12 UCC.	T> 024		
AUG	.990 <⊺	.520 <t< td=""><td>•</td><td></td><td>1> 095.</td><td>15 002"</td><td>1. 0CC.</td><td>120 21</td><td></td><td></td></t<>	•		1> 095.	15 002"	1. 0CC.	120 21		
SEP	1.500	.630 <t< td=""><td>.610 <t< td=""><td>T> 064.</td><td></td><td></td><td>1> N//.</td><td>TV 055.</td><td>•</td><td></td></t<></td></t<>	.610 <t< td=""><td>T> 064.</td><td></td><td></td><td>1> N//.</td><td>TV 055.</td><td>•</td><td></td></t<>	T> 064.			1> N//.	TV 055.	•	
OCT 0	.650 <t< td=""><td>.240 <t< td=""><td>.180 <t< td=""><td>.150 <t< td=""><td></td><td></td><td>12 01.</td><td>15 077</td><td></td><td></td></t<></td></t<></td></t<></td></t<>	.240 <t< td=""><td>.180 <t< td=""><td>.150 <t< td=""><td></td><td></td><td>12 01.</td><td>15 077</td><td></td><td></td></t<></td></t<></td></t<>	.180 <t< td=""><td>.150 <t< td=""><td></td><td></td><td>12 01.</td><td>15 077</td><td></td><td></td></t<></td></t<>	.150 <t< td=""><td></td><td></td><td>12 01.</td><td>15 077</td><td></td><td></td></t<>			12 01.	15 077		
NUN	T> 046.	.340 <t< td=""><td>.280 <t< td=""><td>.340 <t< td=""><td></td><td></td><td>1> 061.</td><td>15 DC1.</td><td>•</td><td></td></t<></td></t<></td></t<>	.280 <t< td=""><td>.340 <t< td=""><td></td><td></td><td>1> 061.</td><td>15 DC1.</td><td>•</td><td></td></t<></td></t<>	.340 <t< td=""><td></td><td></td><td>1> 061.</td><td>15 DC1.</td><td>•</td><td></td></t<>			1> 061.	15 DC1.	•	
DEC	.560 <t< td=""><td>.200 <t< td=""><td>.210 <t< td=""><td>.130 <t< td=""><td></td><td></td><td>BOL</td><td>1> 011.</td><td></td><td></td></t<></td></t<></td></t<></td></t<>	.200 <t< td=""><td>.210 <t< td=""><td>.130 <t< td=""><td></td><td></td><td>BOL</td><td>1> 011.</td><td></td><td></td></t<></td></t<></td></t<>	.210 <t< td=""><td>.130 <t< td=""><td></td><td></td><td>BOL</td><td>1> 011.</td><td></td><td></td></t<></td></t<>	.130 <t< td=""><td></td><td></td><td>BOL</td><td>1> 011.</td><td></td><td></td></t<>			BOL	1> 011.		
BARIUM (UG/L	(DET'N LIM	DET'N LIMIT = 0.020	GUIDELINE = 1000. (A1)	(000. (A1)				
				000 20					19.000	18.000
APR	24.000	18.000	18.000	11000	•				14.000	13.000
MAY	17.000	15.000	14.000	14.000	•			4E 000		
	20.000	17.000	16.000	16.000	•		000.01	10.000		•
TUL	19.000	17.000	17.000	16.000	•		16.000	000.00	•	
ALIG	18.000	16.000			18.000	18.000	19.000	000.33	•	•
SEP.	19.000	17.000	17.000	17.000	•		18.000	10.000		•
001	18.000	17.000	16.000	14.000	•	•	14.000	15.000		•
MON	14.000	17.000	16.000	16.000	•	•	15.000	000.01		
DEC	18.000	15.000	18.000	19.000	•		nnn. / L	000.11		
BORON (UG/L	,	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DET'N LI	DET'N LIMIT = 0.200	GUIDELINE = 5000. (A1)	5000. (A1)				
									7.900 <7	14.000 <
APR	21.000	10.000 <t< td=""><td>15.000 <1</td><td></td><td></td><td>•</td><td></td><td></td><td>6.500 <t< td=""><td></td></t<></td></t<>	15.000 <1			•			6.500 <t< td=""><td></td></t<>	
MAY	60.000	8.300 <t< td=""><td>42.000</td><td>*</td><td>•</td><td></td><td>T, 000 2</td><td>R 000 <t< td=""><td></td><td></td></t<></td></t<>	42.000	*	•		T, 000 2	R 000 <t< td=""><td></td><td></td></t<>		
	9.600 <t< td=""><td>5.400 <t< td=""><td>9.500 <t< td=""><td></td><td>•</td><td>•</td><td>100 -1 VIII -1</td><td>6.800 <t< td=""><td></td><td>٠</td></t<></td></t<></td></t<></td></t<>	5.400 <t< td=""><td>9.500 <t< td=""><td></td><td>•</td><td>•</td><td>100 -1 VIII -1</td><td>6.800 <t< td=""><td></td><td>٠</td></t<></td></t<></td></t<>	9.500 <t< td=""><td></td><td>•</td><td>•</td><td>100 -1 VIII -1</td><td>6.800 <t< td=""><td></td><td>٠</td></t<></td></t<>		•	•	100 -1 VIII -1	6.800 <t< td=""><td></td><td>٠</td></t<>		٠
JUL	8.400 <t< td=""><td>7.600 <t< td=""><td>9.800 <t< td=""><td>8.100 <1</td><td>7 000 7</td><td>A.200 <t< td=""><td>5.700 <1</td><td></td><td></td><td></td></t<></td></t<></td></t<></td></t<>	7.600 <t< td=""><td>9.800 <t< td=""><td>8.100 <1</td><td>7 000 7</td><td>A.200 <t< td=""><td>5.700 <1</td><td></td><td></td><td></td></t<></td></t<></td></t<>	9.800 <t< td=""><td>8.100 <1</td><td>7 000 7</td><td>A.200 <t< td=""><td>5.700 <1</td><td></td><td></td><td></td></t<></td></t<>	8.100 <1	7 000 7	A.200 <t< td=""><td>5.700 <1</td><td></td><td></td><td></td></t<>	5.700 <1			
AUG	11.000 <t< td=""><td>13.000 <t< td=""><td>T. 000 84</td><td>11 000 11</td><td>1. 000-1</td><td></td><td>5.600 <t< td=""><td>9.700 <t< td=""><td></td><td></td></t<></td></t<></td></t<></td></t<>	13.000 <t< td=""><td>T. 000 84</td><td>11 000 11</td><td>1. 000-1</td><td></td><td>5.600 <t< td=""><td>9.700 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	T. 000 84	11 000 11	1. 000-1		5.600 <t< td=""><td>9.700 <t< td=""><td></td><td></td></t<></td></t<>	9.700 <t< td=""><td></td><td></td></t<>		
SEP	15.000 <t< td=""><td>1> 000.11</td><td>1> 000*11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	1> 000.11	1> 000*11							

				WATER TREA	WATER TREATMENT PLANT		DISTRIBU	DISTRIBUTION SYSTEM		
SITE	TE RAW	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
TYPE	۶E	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	STAND ING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
00.1	8.000 <t< td=""><td>6.100 <t< td=""><td>9.300 <t< td=""><td>5.900 <7</td><td></td><td></td><td>5.800 <t< td=""><td>6.300 <t< td=""><td></td><td></td></t<></td></t<></td></t<></td></t<></td></t<>	6.100 <t< td=""><td>9.300 <t< td=""><td>5.900 <7</td><td></td><td></td><td>5.800 <t< td=""><td>6.300 <t< td=""><td></td><td></td></t<></td></t<></td></t<></td></t<>	9.300 <t< td=""><td>5.900 <7</td><td></td><td></td><td>5.800 <t< td=""><td>6.300 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	5.900 <7			5.800 <t< td=""><td>6.300 <t< td=""><td></td><td></td></t<></td></t<>	6.300 <t< td=""><td></td><td></td></t<>		
NOV	9.100 <t 6.100 <t< td=""><td>9.200 <t 6.100 <t< td=""><td>9.900 <t 8.800 <t< td=""><td>8.500 <t 6.300 <t< td=""><td></td><td></td><td>6.900 <t 6.700 <t< td=""><td>6.300 <t 6.000 <t< td=""><td></td><td></td></t<></t </td></t<></t </td></t<></t </td></t<></t </td></t<></t </td></t<></t 	9.200 <t 6.100 <t< td=""><td>9.900 <t 8.800 <t< td=""><td>8.500 <t 6.300 <t< td=""><td></td><td></td><td>6.900 <t 6.700 <t< td=""><td>6.300 <t 6.000 <t< td=""><td></td><td></td></t<></t </td></t<></t </td></t<></t </td></t<></t </td></t<></t 	9.900 <t 8.800 <t< td=""><td>8.500 <t 6.300 <t< td=""><td></td><td></td><td>6.900 <t 6.700 <t< td=""><td>6.300 <t 6.000 <t< td=""><td></td><td></td></t<></t </td></t<></t </td></t<></t </td></t<></t 	8.500 <t 6.300 <t< td=""><td></td><td></td><td>6.900 <t 6.700 <t< td=""><td>6.300 <t 6.000 <t< td=""><td></td><td></td></t<></t </td></t<></t </td></t<></t 			6.900 <t 6.700 <t< td=""><td>6.300 <t 6.000 <t< td=""><td></td><td></td></t<></t </td></t<></t 	6.300 <t 6.000 <t< td=""><td></td><td></td></t<></t 		
BERYLLIUM (UG/L	(ng/r)	***	DET'N LIM	DET*N LIMIT = 0.010	GUIDELINE × N/A	K/A			****	
APR	BOL	108	.020 «T	.020 <t< td=""><td></td><td>•</td><td></td><td></td><td>BOL</td><td>.060</td></t<>		•			BOL	.060
MAY	.080 <t< td=""><td>80L</td><td>BOL</td><td></td><td></td><td></td><td></td><td></td><td>801</td><td>BOL</td></t<>	80L	BOL						801	BOL
	1> Cto.	RNI	T> 070.	BOL			.020 <t< td=""><td>T> 090.</td><td></td><td></td></t<>	T> 090.		
ากท	BOL	.050 <⊺	BUL				BOL	1> Ucu		
AUG	.030 <t< td=""><td>.030 <t< td=""><td></td><td>•</td><td>BUL</td><td>BOL</td><td>.050 <⊺</td><td>BOL</td><td></td><td>,</td></t<></td></t<>	.030 <t< td=""><td></td><td>•</td><td>BUL</td><td>BOL</td><td>.050 <⊺</td><td>BOL</td><td></td><td>,</td></t<>		•	BUL	BOL	.050 <⊺	BOL		,
SEP	BOL	108	108	108			BOL	BOL		
OCT	.050 <t< td=""><td>90F</td><td>80L</td><td>BOL</td><td></td><td></td><td>.020 <t< td=""><td>90F</td><td></td><td>•</td></t<></td></t<>	90F	80L	BOL			.020 <t< td=""><td>90F</td><td></td><td>•</td></t<>	90F		•
NOV	BOL	BOL	80L	108	•		BOL	BOL		•
DEC	BOL	80 L	BOL	BOL			BOL	BOL		
CADMIUM (UG/L	5/T)		DET'N LIN	DET'N LIMIT = 0.050	GUIDELINE = 5.000 (A1)	5.000 (A1)				
APR	.160 <t< td=""><td>.170 <t< td=""><td>.230 <t< td=""><td>,100 <t< td=""><td></td><td></td><td>•</td><td>•</td><td>.180 <t< td=""><td>> 080 .</td></t<></td></t<></td></t<></td></t<></td></t<>	.170 <t< td=""><td>.230 <t< td=""><td>,100 <t< td=""><td></td><td></td><td>•</td><td>•</td><td>.180 <t< td=""><td>> 080 .</td></t<></td></t<></td></t<></td></t<>	.230 <t< td=""><td>,100 <t< td=""><td></td><td></td><td>•</td><td>•</td><td>.180 <t< td=""><td>> 080 .</td></t<></td></t<></td></t<>	,100 <t< td=""><td></td><td></td><td>•</td><td>•</td><td>.180 <t< td=""><td>> 080 .</td></t<></td></t<>			•	•	.180 <t< td=""><td>> 080 .</td></t<>	> 080 .
MAY	170 <t< td=""><td>T> 060.</td><td>.120 <t< td=""><td></td><td></td><td>•</td><td></td><td>•</td><td>.100 «T</td><td>BOL</td></t<></td></t<>	T> 060.	.120 <t< td=""><td></td><td></td><td>•</td><td></td><td>•</td><td>.100 «T</td><td>BOL</td></t<>			•		•	.100 «T	BOL
	BOL	BOL	80L	80L			BOL	BOL		
ากเ	BOL	B0L	108		•	•	BOL	BOL		•
AUG	901	80L		•	90F	901	B0L	BOL		•
SEP	BOL	BOL	80L	BOL			.340 <i< td=""><td>BOL</td><td></td><td></td></i<>	BOL		
OCT	80L	BOL	.080 <t< td=""><td></td><td></td><td></td><td>BOL</td><td>80L</td><td></td><td>•</td></t<>				BOL	80L		•
NON	BOL	BOL	BOL				BOL	BOL		•
200	100	1Ug	1Ug	IUB			BUI	IUd		

					WATER TREA	WATER TREATMENT PLANT	TMENT PLANT		DISTRIBUTION SYSTEM		
	SITE										
	TYPE	RAU	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
				STANDING FREE FLOW	FREE FLOW	STANDING	FREE FLOW	STAND ING	FREE FLOW	STANDING	FREE FLOW
COBALT (UG/L	(UG/L	^		OET'N LIN	DET'N LIMIT = 0.020	GUIDELINE = N/A	¥,	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
APR		.570 <t< td=""><td>.190 <⊺</td><td>.220 <t< td=""><td>.230 <7</td><td></td><td></td><td></td><td></td><td>.150 <t< td=""><td>.130 <1</td></t<></td></t<></td></t<>	.190 <⊺	.220 <t< td=""><td>.230 <7</td><td></td><td></td><td></td><td></td><td>.150 <t< td=""><td>.130 <1</td></t<></td></t<>	.230 <7					.150 <t< td=""><td>.130 <1</td></t<>	.130 <1
MAY		.290 <ĭ	160 <t< td=""><td>.150 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>.160 <t< td=""><td>140 <1</td></t<></td></t<></td></t<>	.150 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>.160 <t< td=""><td>140 <1</td></t<></td></t<>						.160 <t< td=""><td>140 <1</td></t<>	140 <1
		.350 <t< td=""><td>.200 <t< td=""><td>.180 <t< td=""><td></td><td></td><td></td><td>.250 <t< td=""><td>.150 <7</td><td></td><td></td></t<></td></t<></td></t<></td></t<>	.200 <t< td=""><td>.180 <t< td=""><td></td><td></td><td></td><td>.250 <t< td=""><td>.150 <7</td><td></td><td></td></t<></td></t<></td></t<>	.180 <t< td=""><td></td><td></td><td></td><td>.250 <t< td=""><td>.150 <7</td><td></td><td></td></t<></td></t<>				.250 <t< td=""><td>.150 <7</td><td></td><td></td></t<>	.150 <7		
JUL		.200 <t< td=""><td>108</td><td>.040 <⊺</td><td>BOL</td><td></td><td></td><td>T> 040.</td><td>T> 090.</td><td></td><td>•</td></t<>	108	.040 <⊺	BOL			T> 040.	T> 090.		•
AUG		.200 <t< td=""><td>.140 <t< td=""><td></td><td></td><td>160 <t< td=""><td>.160 <7</td><td>.200 <t< td=""><td>.190 <t< td=""><td></td><td></td></t<></td></t<></td></t<></td></t<></td></t<>	.140 <t< td=""><td></td><td></td><td>160 <t< td=""><td>.160 <7</td><td>.200 <t< td=""><td>.190 <t< td=""><td></td><td></td></t<></td></t<></td></t<></td></t<>			160 <t< td=""><td>.160 <7</td><td>.200 <t< td=""><td>.190 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	.160 <7	.200 <t< td=""><td>.190 <t< td=""><td></td><td></td></t<></td></t<>	.190 <t< td=""><td></td><td></td></t<>		
SEP		.210 <t< td=""><td>.180 <t< td=""><td>.180 <t< td=""><td></td><td></td><td></td><td>.190 <⊺</td><td>.160 <t< td=""><td></td><td></td></t<></td></t<></td></t<></td></t<>	.180 <t< td=""><td>.180 <t< td=""><td></td><td></td><td></td><td>.190 <⊺</td><td>.160 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	.180 <t< td=""><td></td><td></td><td></td><td>.190 <⊺</td><td>.160 <t< td=""><td></td><td></td></t<></td></t<>				.190 <⊺	.160 <t< td=""><td></td><td></td></t<>		
0CT		.110 <t< td=""><td>1≻ 000.</td><td>.110 <t< td=""><td></td><td></td><td></td><td>1> 070.</td><td>.110 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	1≻ 0 0 0.	.110 <t< td=""><td></td><td></td><td></td><td>1> 070.</td><td>.110 <t< td=""><td></td><td></td></t<></td></t<>				1> 070.	.110 <t< td=""><td></td><td></td></t<>		
NON		.040 <t< td=""><td>.150 <t< td=""><td>T> 060.</td><td></td><td></td><td></td><td>.140 <t< td=""><td>140 <t< td=""><td></td><td></td></t<></td></t<></td></t<></td></t<>	.150 <t< td=""><td>T> 060.</td><td></td><td></td><td></td><td>.140 <t< td=""><td>140 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	T> 060.				.140 <t< td=""><td>140 <t< td=""><td></td><td></td></t<></td></t<>	140 <t< td=""><td></td><td></td></t<>		
DEC		.190 <⊺	.110 <t< td=""><td>.130 <t< td=""><td>.150 <t< td=""><td></td><td></td><td>.120 <t< td=""><td>.140 <t< td=""><td></td><td>•</td></t<></td></t<></td></t<></td></t<></td></t<>	.130 <t< td=""><td>.150 <t< td=""><td></td><td></td><td>.120 <t< td=""><td>.140 <t< td=""><td></td><td>•</td></t<></td></t<></td></t<></td></t<>	.150 <t< td=""><td></td><td></td><td>.120 <t< td=""><td>.140 <t< td=""><td></td><td>•</td></t<></td></t<></td></t<>			.120 <t< td=""><td>.140 <t< td=""><td></td><td>•</td></t<></td></t<>	.140 <t< td=""><td></td><td>•</td></t<>		•
CHRONIUM (UG/L	1/50) M	Ŷ		DET*N LIN	DET*N LIMIT = 0.100	GUIDELINE = 50. (A1)). (A1)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
APR		1.500	BOL	.160 <t< td=""><td>BOL</td><td></td><td></td><td></td><td></td><td>BOL</td><td>BOL</td></t<>	BOL					BOL	BOL
MAY		2.500	.260 <t< td=""><td>1.600</td><td></td><td></td><td></td><td></td><td></td><td>.110 <t< td=""><td>1.100</td></t<></td></t<>	1.600						.110 <t< td=""><td>1.100</td></t<>	1.100
	-	1.500	BOL		1.000 <t< td=""><td></td><td></td><td>108</td><td>T> 009.</td><td></td><td></td></t<>			108	T> 009.		
JUL	-	1.600	.950 <⊺	1.400	1.200			.220 <t< td=""><td>.850 <t< td=""><td></td><td></td></t<></td></t<>	.850 <t< td=""><td></td><td></td></t<>		
AUG	-	1.200	1.300			.370 <t< td=""><td>.180 <t< td=""><td>.120 <t< td=""><td>.380 <t< td=""><td></td><td></td></t<></td></t<></td></t<></td></t<>	.180 <t< td=""><td>.120 <t< td=""><td>.380 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	.120 <t< td=""><td>.380 <t< td=""><td></td><td></td></t<></td></t<>	.380 <t< td=""><td></td><td></td></t<>		
SEP	-	1.500	1> 0 0 0 <⊺		,920 <t< td=""><td></td><td></td><td>BOL</td><td>T> 0%0.</td><td></td><td></td></t<>			BOL	T> 0%0.		
OCT		1.200	BOL	.270 <t< td=""><td></td><td></td><td></td><td>BOL</td><td>T> 09E.</td><td></td><td></td></t<>				BOL	T> 09E.		
NON		BOL	.200 <t< td=""><td>.250 <t< td=""><td></td><td></td><td></td><td>BOL</td><td>BOL</td><td></td><td></td></t<></td></t<>	.250 <t< td=""><td></td><td></td><td></td><td>BOL</td><td>BOL</td><td></td><td></td></t<>				BOL	BOL		
DEC		BOL	BOL	BOL	.530 <t< td=""><td></td><td></td><td>BOL</td><td>BOL</td><td></td><td>•</td></t<>			BOL	BOL		•
COPPER (UG/L	(UG/L	~ ~	* * * * * * * * * * * * * * * * * * * *	DET'N LIP	DET'N LIMIT = .100	GUIDELINE = 1000 (A3))00 (A3)			8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	
APR	-1	3.300	1.300	36.000	8.900					23.000	7.600
MAY		2.500	.850 <t 2 300</t 	24.000	4.600			. 000 08		100.000	8.500
				000.01	000**			00.000	0.200		

					DRINKING WATER S	SURVEILLANCE PROGR.	DRINKING WATER SURVEILLANCE PROGRAM MAWKESBURY WTP 1989	989		
				WATER TRE	WATER TREATMENT PLANT		DISTRIBU	DISTRIBUTION SYSTEM		
S	SITE	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
L	TYPE		STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0								
JUL	2.000	1.100	19.000	4.700			57.000	44.000		
AUG	2.700	1.200	•		21.000	20.000	69.000	26.000	•	
SEP	2.400	1.300	38.000	13.000			81.000	28.000	•	
00.1	1.600	700 <t< td=""><td>27.000</td><td>5.700</td><td></td><td></td><td>50.000</td><td>8.600</td><td></td><td></td></t<>	27.000	5.700			50.000	8.600		
NON	2.800	1.500	7.900	7.100			100.000	13.000		
DEC	1.500 <t< td=""><td>,940 <⊺</td><td>110.000</td><td>27.000</td><td></td><td></td><td>100.000</td><td>45.000</td><td></td><td></td></t<>	,940 <⊺	110.000	27.000			100.000	45.000		
IRON (UG/L	1)	8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	DET'N LI	DET'N LIMIT = 4.000	GUIDELIME = 300. (A3)	300. (A3)				
APR	640.000	92.000	180.000	110.000					90.000	83.000
MAY	230.000	42.000 <t< td=""><td>53.000</td><td>45.000 <t< td=""><td>•</td><td></td><td></td><td></td><td>000.11</td><td>11.000 <</td></t<></td></t<>	53.000	45.000 <t< td=""><td>•</td><td></td><td></td><td></td><td>000.11</td><td>11.000 <</td></t<>	•				000.11	11.000 <
	360.000	33,000 <t< td=""><td>43.000 <t< td=""><td></td><td></td><td></td><td>89.000</td><td>14.000 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	43.000 <t< td=""><td></td><td></td><td></td><td>89.000</td><td>14.000 <t< td=""><td></td><td></td></t<></td></t<>				89.000	14.000 <t< td=""><td></td><td></td></t<>		
JUL	310.000	25.000 <t< td=""><td>100.000</td><td>49.000 <t< td=""><td>•</td><td></td><td>54,000</td><td>49.000 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	100.000	49.000 <t< td=""><td>•</td><td></td><td>54,000</td><td>49.000 <t< td=""><td></td><td></td></t<></td></t<>	•		54,000	49.000 <t< td=""><td></td><td></td></t<>		
AUG	210.000	33.000 <t< td=""><td>•</td><td></td><td>43.000 <t< td=""><td>49.000 <t< td=""><td>71.000</td><td>38.000 <t< td=""><td></td><td></td></t<></td></t<></td></t<></td></t<>	•		43.000 <t< td=""><td>49.000 <t< td=""><td>71.000</td><td>38.000 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	49.000 <t< td=""><td>71.000</td><td>38.000 <t< td=""><td></td><td></td></t<></td></t<>	71.000	38.000 <t< td=""><td></td><td></td></t<>		
SEP	180.000	27.000 <1	35.000 <t< td=""><td></td><td></td><td></td><td>45.000 <t< td=""><td>16.000 <t< td=""><td>•</td><td></td></t<></td></t<></td></t<>				45.000 <t< td=""><td>16.000 <t< td=""><td>•</td><td></td></t<></td></t<>	16.000 <t< td=""><td>•</td><td></td></t<>	•	
001	190.000	34.000 <t< td=""><td>43.000 <t< td=""><td></td><td></td><td></td><td>31.000 <t< td=""><td>24.000 <t< td=""><td></td><td></td></t<></td></t<></td></t<></td></t<>	43.000 <t< td=""><td></td><td></td><td></td><td>31.000 <t< td=""><td>24.000 <t< td=""><td></td><td></td></t<></td></t<></td></t<>				31.000 <t< td=""><td>24.000 <t< td=""><td></td><td></td></t<></td></t<>	24.000 <t< td=""><td></td><td></td></t<>		
NON	15.000 <t< td=""><td>200.000</td><td>72.000</td><td></td><td></td><td></td><td>110.000</td><td>23.000 <t< td=""><td></td><td>•</td></t<></td></t<>	200.000	72.000				110.000	23.000 <t< td=""><td></td><td>•</td></t<>		•
DEC	210.000	45.000 <t< td=""><td>7× 000°*7</td><td>T 55.000 <t< td=""><td></td><td></td><td>67.000</td><td>60.000 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	7× 000°*7	T 55.000 <t< td=""><td></td><td></td><td>67.000</td><td>60.000 <t< td=""><td></td><td></td></t<></td></t<>			67.000	60.000 <t< td=""><td></td><td></td></t<>		
MERCURY (UG/L	NG/L)	9 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	DET+W L	DET*W LIMIT = 0.010	GUIDELINE = 1.000 (A1)	1.000 (A1)				
APR	BDL	BOL		BDL						log
MAY	BDL	801	•	BDL						BOL
	BOL	BOL		BDL				BOL		
JUL	BDL	801		108				.020 <t< td=""><td></td><td>•</td></t<>		•
AUG	BOL	BDL				B0L		BOL		
SEP	BOL	.040 <⊺		.080		•		BOL	•	
00.7	.030 <t< td=""><td>.030 <7</td><td>٠</td><td>BOL</td><td></td><td></td><td></td><td>.040 <⊺</td><td></td><td>•</td></t<>	.030 <7	٠	BOL				.040 <⊺		•

					DRINKING WATER	DRINKING WATER SURVEILLANCE PROGRAM HANKESBURY WTP 1989	AM HAWKESBURY WTP	1989		
				WATER TREA	WATER TREATMENT PLANT		DISTRI	DISTRIBUTION SYSTEM		
	SITE RAU	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
	ITPE		STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STAND ING	FREE FLOW
NOV DEC	80L .050 <t< th=""><th>80L .050 <t< th=""><th></th><th>.020 <⊺ .030 <⊺</th><th></th><th></th><th>• •</th><th>108 108</th><th></th><th></th></t<></th></t<>	80L .050 <t< th=""><th></th><th>.020 <⊺ .030 <⊺</th><th></th><th></th><th>• •</th><th>108 108</th><th></th><th></th></t<>		.020 <⊺ .030 <⊺			• •	108 108		
MANGANESE (UG/L	(ng/L)		DET'N LIMIT = .	DET'N LIMIT = .050	GUIDELINE = 50.0 (A3)	10.0 (A3)				
APR	43.000	36.000	39.000	35.000				٠	35,000	34.000
MAY	17.000	17.000	13.000	12.000					13.000	8.400
	53.000	16.000	16.000	12.000			12.000	7.500		
JUL	25.000	16.000	24.000	12.000			11.000	9.800		
AUG	20.000	12.000			11.000	11.000	13.000	12.000		
SEP	33.000	9.500	7.800	6.600			8.500	9.400		
0CT	16.000	14.000	14.000	9.100			8.400	7.600		
NON	.320 <t< th=""><th>11.000</th><th>17.000</th><th>16.000</th><th></th><th></th><th>8.000</th><th>4.600</th><th></th><th></th></t<>	11.000	17.000	16.000			8.000	4.600		
DEC	16.000	12.000	12.000	12.000			12.000	12.000		•
MOLYBDENUM (UG/L	M (UG/L)		DET'N LI	DET'N LIMIT = 0.020	GUIDELINE = N/A	1/A	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			
APR	.170 «T	.320 <t< th=""><th>.380 <t< th=""><th>.300 <1</th><th></th><th></th><th></th><th></th><th>.380 <t< th=""><th>T> 014.</th></t<></th></t<></th></t<>	.380 <t< th=""><th>.300 <1</th><th></th><th></th><th></th><th></th><th>.380 <t< th=""><th>T> 014.</th></t<></th></t<>	.300 <1					.380 <t< th=""><th>T> 014.</th></t<>	T> 014.
MAY	.210 <t< td=""><td>.410 <t< td=""><td>.330 <t< td=""><td>.450 <t< td=""><td></td><td></td><td></td><td></td><td>.220 <t< td=""><td>.410 <t< td=""></t<></td></t<></td></t<></td></t<></td></t<></td></t<>	.410 <t< td=""><td>.330 <t< td=""><td>.450 <t< td=""><td></td><td></td><td></td><td></td><td>.220 <t< td=""><td>.410 <t< td=""></t<></td></t<></td></t<></td></t<></td></t<>	.330 <t< td=""><td>.450 <t< td=""><td></td><td></td><td></td><td></td><td>.220 <t< td=""><td>.410 <t< td=""></t<></td></t<></td></t<></td></t<>	.450 <t< td=""><td></td><td></td><td></td><td></td><td>.220 <t< td=""><td>.410 <t< td=""></t<></td></t<></td></t<>					.220 <t< td=""><td>.410 <t< td=""></t<></td></t<>	.410 <t< td=""></t<>
	.280 <t< th=""><th>.410 <t< th=""><th>1> 067°</th><th></th><th></th><th></th><th>.320 <t< th=""><th>.560</th><th></th><th></th></t<></th></t<></th></t<>	.410 <t< th=""><th>1> 067°</th><th></th><th></th><th></th><th>.320 <t< th=""><th>.560</th><th></th><th></th></t<></th></t<>	1> 067°				.320 <t< th=""><th>.560</th><th></th><th></th></t<>	.560		
JUL	.260 <t< th=""><th>170 <t< th=""><th>.210 <7</th><th>.250 <t< th=""><th></th><th></th><th>.180 <t< th=""><th>.390 <t< th=""><th></th><th></th></t<></th></t<></th></t<></th></t<></th></t<>	170 <t< th=""><th>.210 <7</th><th>.250 <t< th=""><th></th><th></th><th>.180 <t< th=""><th>.390 <t< th=""><th></th><th></th></t<></th></t<></th></t<></th></t<>	.210 <7	.250 <t< th=""><th></th><th></th><th>.180 <t< th=""><th>.390 <t< th=""><th></th><th></th></t<></th></t<></th></t<>			.180 <t< th=""><th>.390 <t< th=""><th></th><th></th></t<></th></t<>	.390 <t< th=""><th></th><th></th></t<>		
AUG	.350 <t< th=""><th>.320 <t< th=""><th></th><th></th><th>.250 <1</th><th>.260 <t< th=""><th>.220 <t< th=""><th>.180 <⊺</th><th></th><th></th></t<></th></t<></th></t<></th></t<>	.320 <t< th=""><th></th><th></th><th>.250 <1</th><th>.260 <t< th=""><th>.220 <t< th=""><th>.180 <⊺</th><th></th><th></th></t<></th></t<></th></t<>			.250 <1	.260 <t< th=""><th>.220 <t< th=""><th>.180 <⊺</th><th></th><th></th></t<></th></t<>	.220 <t< th=""><th>.180 <⊺</th><th></th><th></th></t<>	.180 <⊺		
SEP	I> 02.9°	.550	.500 <t< th=""><th></th><th></th><th></th><th>.410 <t< th=""><th>T> 044.</th><th></th><th></th></t<></th></t<>				.410 <t< th=""><th>T> 044.</th><th></th><th></th></t<>	T> 044.		
001	.220 <t< th=""><th>.250 <t< th=""><th>170 41</th><th></th><th></th><th></th><th>.220 <t< th=""><th>.190 <t< th=""><th>•</th><th></th></t<></th></t<></th></t<></th></t<>	.250 <t< th=""><th>170 41</th><th></th><th></th><th></th><th>.220 <t< th=""><th>.190 <t< th=""><th>•</th><th></th></t<></th></t<></th></t<>	170 41				.220 <t< th=""><th>.190 <t< th=""><th>•</th><th></th></t<></th></t<>	.190 <t< th=""><th>•</th><th></th></t<>	•	
NON	I> 02%.	.190 <ī	.210 <t< td=""><td></td><td></td><td></td><td>.160 <7</td><td>.230 <t< td=""><td></td><td></td></t<></td></t<>				.160 <7	.230 <t< td=""><td></td><td></td></t<>		
DEC	.200 <t< td=""><td>.230 <t< td=""><td>.150 <t< td=""><td>.220 <t< td=""><td></td><td></td><td>.170 <t< td=""><td>.190 <t< td=""><td>•</td><td></td></t<></td></t<></td></t<></td></t<></td></t<></td></t<>	.230 <t< td=""><td>.150 <t< td=""><td>.220 <t< td=""><td></td><td></td><td>.170 <t< td=""><td>.190 <t< td=""><td>•</td><td></td></t<></td></t<></td></t<></td></t<></td></t<>	.150 <t< td=""><td>.220 <t< td=""><td></td><td></td><td>.170 <t< td=""><td>.190 <t< td=""><td>•</td><td></td></t<></td></t<></td></t<></td></t<>	.220 <t< td=""><td></td><td></td><td>.170 <t< td=""><td>.190 <t< td=""><td>•</td><td></td></t<></td></t<></td></t<>			.170 <t< td=""><td>.190 <t< td=""><td>•</td><td></td></t<></td></t<>	.190 <t< td=""><td>•</td><td></td></t<>	•	
NICKEL (UG/L)/9/		DET*N LI	DET'N LIMIT = 0.100	GUIDELINE = 50. (F3)	50. (F3)	***	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		

				WATER TREA	WATER TREATMENT PLANT		DISTRI	DISTRIBUTION SYSTEM		
SITE	ERAN	TREATED	SITE 1		SITE 3		\$1TE 2		SITE 4	
TYPE		** * * * * * * * * * * * * *	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
4 D D	1 500 «T	580 «T	000.4	.520 <1					1.200 <1	(> 09 7 ."
MAY	.560 «T	7> 080.	1.800 <t< td=""><td>.820 <t< td=""><td></td><td></td><td></td><td></td><td>.860 <⊺</td><td>1× 022.</td></t<></td></t<>	.820 <t< td=""><td></td><td></td><td></td><td></td><td>.860 <⊺</td><td>1× 022.</td></t<>					.860 <⊺	1× 022.
	1.400 <t< td=""><td>1.200 <t< td=""><td>1.500 <1</td><td>.870 <t< td=""><td></td><td></td><td>7>0<7.</td><td>1.200 <t< td=""><td></td><td></td></t<></td></t<></td></t<></td></t<>	1.200 <t< td=""><td>1.500 <1</td><td>.870 <t< td=""><td></td><td></td><td>7>0<7.</td><td>1.200 <t< td=""><td></td><td></td></t<></td></t<></td></t<>	1.500 <1	.870 <t< td=""><td></td><td></td><td>7>0<7.</td><td>1.200 <t< td=""><td></td><td></td></t<></td></t<>			7>0<7.	1.200 <t< td=""><td></td><td></td></t<>		
JUL	.580 <t< td=""><td>801</td><td>BOL</td><td>801</td><td>•</td><td></td><td>1.000 <t< td=""><td>B01</td><td></td><td></td></t<></td></t<>	801	BOL	801	•		1.000 <t< td=""><td>B01</td><td></td><td></td></t<>	B01		
AUG	T> 070.	.710 <t< td=""><td></td><td></td><td>.590 <f< td=""><td>.520 <t< td=""><td>3.100</td><td>.450 <t< td=""><td></td><td></td></t<></td></t<></td></f<></td></t<>			.590 <f< td=""><td>.520 <t< td=""><td>3.100</td><td>.450 <t< td=""><td></td><td></td></t<></td></t<></td></f<>	.520 <t< td=""><td>3.100</td><td>.450 <t< td=""><td></td><td></td></t<></td></t<>	3.100	.450 <t< td=""><td></td><td></td></t<>		
SEP	1.100 <t< td=""><td>.720 <t< td=""><td>7> 0£6.</td><td>730 <7</td><td></td><td></td><td>2.200</td><td>.890 <⊺</td><td></td><td></td></t<></td></t<>	.720 <t< td=""><td>7> 0£6.</td><td>730 <7</td><td></td><td></td><td>2.200</td><td>.890 <⊺</td><td></td><td></td></t<>	7> 0£6.	730 <7			2.200	.890 <⊺		
0CT	.670 <⊺	T> 004.	1.600 <t< td=""><td>.270 <f< td=""><td></td><td></td><td>.280 <t< td=""><td>180 ≼⊺</td><td></td><td></td></t<></td></f<></td></t<>	.270 <f< td=""><td></td><td></td><td>.280 <t< td=""><td>180 ≼⊺</td><td></td><td></td></t<></td></f<>			.280 <t< td=""><td>180 ≼⊺</td><td></td><td></td></t<>	180 ≼⊺		
NON	BOL	80L	13.000	3.500	•		BOL	BOL		
DEC	.500 «T	80L	.640 <t< td=""><td>BOL</td><td></td><td></td><td>10.000</td><td>.320 <t< td=""><td>•</td><td></td></t<></td></t<>	BOL			10.000	.320 <t< td=""><td>•</td><td></td></t<>	•	
LEAD (UG/L	(DET'N LIM	DET'N LIMIT = 0.050	GUIDELINE = 50. (A1)	0. (A1)				
APR	1.100	.160 <t< td=""><td>1.000</td><td>.390</td><td></td><td>•</td><td>•</td><td></td><td>1.700</td><td>.410</td></t<>	1.000	.390		•	•		1.700	.410
MAY	.830	.030 <t< td=""><td>.710</td><td>.220</td><td></td><td>•</td><td>•</td><td></td><td>4.300</td><td>.240</td></t<>	.710	.220		•	•		4.300	.240
	.980	.130 <1	.530	.260		•	3.400	.310		•
JUL	1.300	BOL	1.500	.660			2.400	690.	•	•
AUG	1.100	.340			3.100	3.500	3.900	1.100		•
SEP	086.	.390	1.700	.860	•		5.500	066	•	•
001	.830	.110 <t< td=""><td>1.300</td><td>.260</td><td></td><td></td><td>3.900</td><td>.880</td><td></td><td>•</td></t<>	1.300	.260			3.900	.880		•
NON	.030 <t< td=""><td>.240</td><td>.180 <t< td=""><td>.230</td><td></td><td></td><td>6.000</td><td>.240</td><td></td><td>•</td></t<></td></t<>	.240	.180 <t< td=""><td>.230</td><td></td><td></td><td>6.000</td><td>.240</td><td></td><td>•</td></t<>	.230			6.000	.240		•
DEC	.330 <t< td=""><td>BOL</td><td>1.300</td><td>.500 <t< td=""><td></td><td></td><td>2.700</td><td>.420 <1</td><td></td><td></td></t<></td></t<>	BOL	1.300	.500 <t< td=""><td></td><td></td><td>2.700</td><td>.420 <1</td><td></td><td></td></t<>			2.700	.420 <1		
ANTIMONY (UG/L	()	****	DET'N LIM	DET'N LIMIT = .050	GUIDELINE = 146. (D4)	146. (D4)				
APR	.330	.540	097.	.370		,			.510	.420
MAY	.530	.680	.520	.570	•				.550	.590
	064.	.770	.840	016.			0*6	.820		
JUL	.590	.740	097.	.550			.580	.670		

DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989

					DRINKING WATER SU	RVEILLANCE PROGR	DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989	1989		
				WATER TREA	WATER TREATMENT PLANT		DISTRIB	DISTRIBUTION SYSTEM		
SITE	ERAM	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
TYPE			STAND ING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
ALIC.	A10	009			.580	009.	.670	009.	, 5 5 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	5 9 5 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
SEP	.450	087	.510	067		•	.520	.570		•
OCT 0	.600	.540	.500	.540			.530	.570		
NON	.710	.490	077	.370			.480	.580	•	•
DEC	.380 <t< th=""><th>.590</th><th>.410 <t< th=""><th>.470 <t< th=""><th></th><th></th><th>.340 <t< th=""><th>.420 <t< th=""><th></th><th></th></t<></th></t<></th></t<></th></t<></th></t<>	.590	.410 <t< th=""><th>.470 <t< th=""><th></th><th></th><th>.340 <t< th=""><th>.420 <t< th=""><th></th><th></th></t<></th></t<></th></t<></th></t<>	.470 <t< th=""><th></th><th></th><th>.340 <t< th=""><th>.420 <t< th=""><th></th><th></th></t<></th></t<></th></t<>			.340 <t< th=""><th>.420 <t< th=""><th></th><th></th></t<></th></t<>	.420 <t< th=""><th></th><th></th></t<>		
SELENTUM (UG/L	6/L)		DET'N LIM	DET'N LIMIT = 0.200	GUIDELINE = 10. (A1)	i. (A1)				
APP.	.350 <t< td=""><td>BOL</td><td>BOL</td><td>BUL</td><td></td><td></td><td></td><td></td><td>.310 <t< td=""><td>,480 <</td></t<></td></t<>	BOL	BOL	BUL					.310 <t< td=""><td>,480 <</td></t<>	,480 <
MAY	BOL	1> 005.1	T> 040.	T> 099°.				•	1.600 <t< th=""><th>BOL</th></t<>	BOL
	1.700 <1	1.300 <t< th=""><th>1.800 -1</th><th>1.300 <t< th=""><th></th><th></th><th>.370 <t< th=""><th>BULL</th><th></th><th></th></t<></th></t<></th></t<>	1.800 -1	1.300 <t< th=""><th></th><th></th><th>.370 <t< th=""><th>BULL</th><th></th><th></th></t<></th></t<>			.370 <t< th=""><th>BULL</th><th></th><th></th></t<>	BULL		
JUL	BOL	BOL	1.800 <t< td=""><td>BOL</td><td></td><td></td><td>1.200 <t< td=""><td>1.100 <t< td=""><td></td><td>•</td></t<></td></t<></td></t<>	BOL			1.200 <t< td=""><td>1.100 <t< td=""><td></td><td>•</td></t<></td></t<>	1.100 <t< td=""><td></td><td>•</td></t<>		•
AUG	2.100 <t< td=""><td>1.900 <t< td=""><td></td><td></td><td>2.300 <t< td=""><td>2.500 <1</td><td>2.400 <t< td=""><td>1.300 <t< td=""><td>•</td><td>•</td></t<></td></t<></td></t<></td></t<></td></t<>	1.900 <t< td=""><td></td><td></td><td>2.300 <t< td=""><td>2.500 <1</td><td>2.400 <t< td=""><td>1.300 <t< td=""><td>•</td><td>•</td></t<></td></t<></td></t<></td></t<>			2.300 <t< td=""><td>2.500 <1</td><td>2.400 <t< td=""><td>1.300 <t< td=""><td>•</td><td>•</td></t<></td></t<></td></t<>	2.500 <1	2.400 <t< td=""><td>1.300 <t< td=""><td>•</td><td>•</td></t<></td></t<>	1.300 <t< td=""><td>•</td><td>•</td></t<>	•	•
SEP	BOL	BOL	80L	BOL		•	BOL	108		
0CT	BOL	BOL	108	BOL	•		108	BOL	•	•
NON	BOL	BOL	BOL	109		•	ION	BOL		•
DEC	BOL	B01	BOL	80 L	•		BOL	BOL		
STRONTIUM (UG/L	1/9N	2 3 3 3 3 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5	DET'N LIM	DET'N LIMIT = .050	GUIDELINE = W/A	Y.				
APR	63.000	76.000	75.000	74.000					76.000	75.000
MAY	53.000	64.000	59,000	57.000					57.000	57.000
	57.000	68.000	64.000	66.000			66.000	61.000		•
JUL	45.000	55.000	57.000	57.000		•	56.000	56.000	•	
AUG	000.44	56.000			56.000	55.000	56.000	58.000		
SEP	47.000	54.000	54.000	55.000	•	•	58,000	52.000	•	
OCT OCT	50.000	65.000	63.000	58.000		•	57.000	56.000	•	
NON	61.000	71.000	68.000	69.000			72.000	72.000	•	

			FREE FLOW				3.700		•						****	.210										BDL
		\$1TE 4	STANDING			7.900	5.400	•	•	•	•	•	•	•	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	.220	801					•				BOL
1989	DISTRIBUTION SYSTEM		FREE FLOW	55.000				8.100	9.700	5.500	5.900	4.600	4.400	6.200			•	BOL	BOL	B0L	80L	BOL	BOL	BOL		
AM HAWKESBURY WTP	DISTRIB	SITE 2	STANDING	56,000	* * * * * * * * * * * * * * * *			11.000	9.500	6.000	6.400	4.900	6.100	6.100	* * * * * * * * * * * * * * * * * * * *	•	•	.050 <t< td=""><td>BOL</td><td>BOL</td><td>BOL</td><td>.020 <t< td=""><td>BOL</td><td>BOL</td><td></td><td></td></t<></td></t<>	BOL	BOL	BOL	.020 <t< td=""><td>BOL</td><td>BOL</td><td></td><td></td></t<>	BOL	BOL		
DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989			FREE FLOW		I/A			•	•	5.800	•		•	٠	3. (D4)					BOL					0. (A2)	
ORINKING WATER	WATER TREATMENT PLANT	SITE 3	STANDING		GUIDELINE = N/A	٠	٠	•	•	5.800			•		GUIDELINE = 13. (D4)				•	80L					GUIDELINE = 20. (A2)	٠
	WATER TRE		FREE FLOW	56.000	11 = .050	8.300	5.200	0.600	10.000	•	6.000	4.500	6.100	6.600	IT = .010	.190 «T	BOL	BOL	BOL		BOL	.020 <1	BDL	BOL	11 = .020	BOL
		SITE 1	STANDING	57,000	DET'N LIMIT = .050	10.000	5.900	12.000	13.000		6.700	5.600	6.200	7.100	DET'N LIMIT = .010	.170 <t< td=""><td>.020 <t< td=""><td>,030 <t< td=""><td>B01</td><td></td><td>.020 <7</td><td>BOL</td><td>BOL</td><td>80 L</td><td>DET'N LIMIT = .020</td><td>BOL</td></t<></td></t<></td></t<>	.020 <t< td=""><td>,030 <t< td=""><td>B01</td><td></td><td>.020 <7</td><td>BOL</td><td>BOL</td><td>80 L</td><td>DET'N LIMIT = .020</td><td>BOL</td></t<></td></t<>	,030 <t< td=""><td>B01</td><td></td><td>.020 <7</td><td>BOL</td><td>BOL</td><td>80 L</td><td>DET'N LIMIT = .020</td><td>BOL</td></t<>	B01		.020 <7	BOL	BOL	80 L	DET'N LIMIT = .020	BOL
		TREATED		60,000		8.300	5.900	10.000	9.200	5.400	6.500	5.600	12.000	7.600	- 6 6 6 8 8 6 6 8 8 8 8 8 8 8 8 8 8 8 8	.130 <t< td=""><td>BOL</td><td>BOL</td><td>80L</td><td>80L</td><td>80L</td><td>108</td><td>BOL</td><td>BOL</td><td></td><td>BOL</td></t<>	BOL	BOL	80L	80L	80L	108	BOL	BOL		BOL
		SITE	TYPE	55.000	, nc/r	30,000	10.000	19.000	22.000	10.000	9.700	9.200	3,300	11.000	.ne/r)	.200 <t< td=""><td>.040 «T</td><td>.030 <t< td=""><td>.020 <t< td=""><td>BOL</td><td>BOL</td><td>BOL</td><td>BOL</td><td>BOL</td><td>16/L)</td><td>.270</td></t<></td></t<></td></t<>	.040 «T	.030 <t< td=""><td>.020 <t< td=""><td>BOL</td><td>BOL</td><td>BOL</td><td>BOL</td><td>BOL</td><td>16/L)</td><td>.270</td></t<></td></t<>	.020 <t< td=""><td>BOL</td><td>BOL</td><td>BOL</td><td>BOL</td><td>BOL</td><td>16/L)</td><td>.270</td></t<>	BOL	BOL	BOL	BOL	BOL	16/L)	.270
		SI	1	DEC	TITANIUM (UG/L	APR	MAY		JUL	AUG	SEP	OC T	NON	DEC	THALLIUM (UG/L	APR	MAY		JUL	AUG	SEP	0CT	NON	DEC	URANIUM (UG/L	APR

				FREE FLOW	BOL		• •						026.										5.600				
			SITE 4	STAND ING	BOL	•		•	•	•	•		026.	066"							•		12.000	8.200			
1989	DISTRIBUTION SYSTEM			FREE FLOW		300	BOL	BOL	BDL	BDL	BDL			•	1.100	1.100	.720	.750	078.	.650	.380 <t< td=""><td></td><td></td><td></td><td>2.200</td><td>3.800</td><td></td></t<>				2.200	3.800	
DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989	DISTRIBU		SITE 2	STANDING	- 070	IN UNU.	.060 <t< td=""><td>BOL</td><td>.030 <t< td=""><td>BOL</td><td>BOL</td><td></td><td>٠</td><td></td><td>1.400</td><td>1.100</td><td>0%6.</td><td>o.L.</td><td>.910</td><td>.780</td><td>.390 «T</td><td></td><td></td><td></td><td>6.900</td><td>8.700</td><td></td></t<></td></t<>	BOL	.030 <t< td=""><td>BOL</td><td>BOL</td><td></td><td>٠</td><td></td><td>1.400</td><td>1.100</td><td>0%6.</td><td>o.L.</td><td>.910</td><td>.780</td><td>.390 «T</td><td></td><td></td><td></td><td>6.900</td><td>8.700</td><td></td></t<>	BOL	BOL		٠		1.400	1.100	0%6.	o.L.	.910	.780	.390 «T				6.900	8.700	
RVEILLANCE PROGRAU				FREE FLOW	•		.040 «T						•				.800					0. (٨3)					
DRINKING WATER SU	WATER TREATMENT PLANT	P 1810	SITE 3	STANDING	•	• •	.090 <⊺					GUIDELINE = N/A					.840					GUIDELINE = 5000. (A3)					
-	WATER TREA			FREE FLOW	108	1080.	•	BOL	BOL	.050 <t< td=""><td>BOL</td><td>r = .050</td><td>.930</td><td>.850</td><td>1.100</td><td>1.100</td><td></td><td>.860</td><td>.850</td><td>.800</td><td>.520</td><td>r = .001</td><td>4.500</td><td>3.600</td><td>2.700</td><td>3.300</td><td></td></t<>	BOL	r = .050	.930	.850	1.100	1.100		.860	.850	.800	.520	r = .001	4.500	3.600	2.700	3.300	
			311E 1	STANDING	1010	1> 0/0.		BOL	BOL	.050 <t< td=""><td>BOL</td><td>DET'N LIMIT = .050</td><td>1.200</td><td>998.</td><td>1.200</td><td>1.100</td><td></td><td>.860</td><td>.810</td><td>.800</td><td>1> 067.</td><td>DET'N LIMIT = .001</td><td>7.600</td><td>8.000</td><td>5.800</td><td>7.000</td><td></td></t<>	BOL	DET'N LIMIT = .050	1.200	998.	1.200	1.100		.860	.810	.800	1> 067.	DET'N LIMIT = .001	7.600	8.000	5.800	7.000	
		707.4750	IKEALED		1> 0%0.	BOL	.130 «T	.030 <t< td=""><td>BOL</td><td>T> 070.</td><td>BOL</td><td></td><td>0%6.</td><td>026.</td><td>1.200</td><td>1.100</td><td>1.100</td><td>.840</td><td>.840</td><td>1.100</td><td>.530</td><td></td><td>4.400</td><td>3.600</td><td>3.200</td><td>4.800</td><td></td></t<>	BOL	T> 070.	BOL		0%6.	026.	1.200	1.100	1.100	.840	.840	1.100	.530		4.400	3.600	3.200	4.800	
			MAN		1> 041.	.110 <t< td=""><td>170 <t< td=""><td>.120 <t< td=""><td>.040 <⊺</td><td>.090 ≺⊺</td><td>.110 <t< td=""><td>(T/</td><td>1.600</td><td>.580</td><td>026"</td><td>.890</td><td>.710</td><td>.640</td><td>.580</td><td>.450 <t< td=""><td>T> 044.</td><td>)</td><td>002.6</td><td>11.000</td><td>7.400</td><td>6.300</td><td></td></t<></td></t<></td></t<></td></t<></td></t<>	170 <t< td=""><td>.120 <t< td=""><td>.040 <⊺</td><td>.090 ≺⊺</td><td>.110 <t< td=""><td>(T/</td><td>1.600</td><td>.580</td><td>026"</td><td>.890</td><td>.710</td><td>.640</td><td>.580</td><td>.450 <t< td=""><td>T> 044.</td><td>)</td><td>002.6</td><td>11.000</td><td>7.400</td><td>6.300</td><td></td></t<></td></t<></td></t<></td></t<>	.120 <t< td=""><td>.040 <⊺</td><td>.090 ≺⊺</td><td>.110 <t< td=""><td>(T/</td><td>1.600</td><td>.580</td><td>026"</td><td>.890</td><td>.710</td><td>.640</td><td>.580</td><td>.450 <t< td=""><td>T> 044.</td><td>)</td><td>002.6</td><td>11.000</td><td>7.400</td><td>6.300</td><td></td></t<></td></t<></td></t<>	.040 <⊺	.0 9 0 ≺⊺	.110 <t< td=""><td>(T/</td><td>1.600</td><td>.580</td><td>026"</td><td>.890</td><td>.710</td><td>.640</td><td>.580</td><td>.450 <t< td=""><td>T> 044.</td><td>)</td><td>002.6</td><td>11.000</td><td>7.400</td><td>6.300</td><td></td></t<></td></t<>	(T/	1.600	.580	026"	.890	.710	.640	.580	.450 <t< td=""><td>T> 044.</td><td>)</td><td>002.6</td><td>11.000</td><td>7.400</td><td>6.300</td><td></td></t<>	T> 044.)	002.6	11.000	7.400	6.300	
		SITE	TYPE		MAT	JUL	AUG	SEP	OCT 0	NON	DEC	VANADIUM (UG/L	APR	MAY		JUL	AUG	SEP	OCT 0	NON	DEC	ZINC (NG/L	APR	MAY		JUL	

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DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989

FREE FLOW SITE 4 STAND ING 3.700 1.900 2.200 5.300 DISTRIBUTION SYSTEM FREE FLOW SITE 2 17.000 9.900 11.000 13.000 STAND ING FREE FLOW SITE 3 STANDING . . . WATER TREATMENT PLANT 2.700 1.700 3.200 5.200 FREE FLOW 8.000 6.500 3.600 15.000 SITE 1 STAND ING 4.500 2.100 4.000 4.200 TREATED 4.700 4.000 .770 <T 3.800 RAW SITE TYPE SEP OCT NOV DEC

	SITE 4	FREE FLOW		•	(81)	•
		Ĕ.	N/A		5000	
DISTRIBUTION SYSTEM	SITE 2	FREE FLOW	DET'N LIMIT = 10. GUIDELINE = N/A		GUIDELINE = 5000 (81)	
DISTRI			10.		20.	
-	SITE 3	FREE FLOW	DET'N LIMIT	•	DET'N LIMIT = 20.	•
ИТ	SITE 1	FREE FLOW FREE FLOW FREE FLOW FREE FLOW	4 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		246-TRICHLOROPHEMOL (NG/L) DET'N LIMIT = 20. GUIDELINE = 5000 (B1)	
T PLA	٥			ي.		0 <t< td=""></t<>
WATER TREATMENT PLANT	TREATED		(NOLS	BOL	^	80.000 <t< td=""></t<>
WATER			CHLOROPHENOLS	٢	CNG/L	×۲
	RAW		CHLOROPHENOLS (NG/L)	20.000 <t< td=""><td>246-TRICHLOROPHENOL (NG/L</td><td>80.000 <t< td=""></t<></td></t<>	246-TRICHLOROPHENOL (NG/L	80.000 <t< td=""></t<>
			2356 T-C	NON	246-TRIC	NON

٠ Press parts S1TE 4 DN: JNL ... 115 80L 80L 80L 2.000 <T BDL DISTRIBUTION SYSTEM SITE 2 SITE 3 WATER TREATMENT PLANT . 6DL 19U 2.000 <T 8DL 80L 80L BDL DET'W LIMIT = 1.000 SITE 1 BDL !qU 1.000 ≺T 1.000 <T BDL BOL TREATED PESTICIDES & PCB 801 801 601 9801 801 900 100 11A RAW SITE TYPE AP.R MAY JUL AUG SEP OCT DEC

TABLE 5

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			WATER TREATMENT PLANT	MENT PLANT		0151	DISTRIBUTION SYSTEM			
15	SITE RAW	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
Ţ	TYPE		л	ľ.	ст :	Pro co a co	9	Pr. J.	Duris European Shiukees	
PHENOL LCS	PHENOLICS (002/L)	cs	DET'N LIMIT = 0.2		GUIDELINE = 2.00 (A3)	00 (A3)				
APR	6.600	3.000								
MAY	4.200	2.600					•		•	
	2.600	1.600			•		•		•	
JUL	1.800	1.600						•		
AUG	1.200	1,000 <t< th=""><td></td><td></td><td></td><td></td><td>•</td><td>•</td><td></td><td></td></t<>					•	•		
SEP	2.200	1.600					•	•		
0CT	3.200	1.800					•	•		
NON	1.400	1.409				•		•	•	
DEC	1.600	1.000 <t< th=""><td></td><td></td><td>•</td><td></td><td>•</td><td>•</td><td></td><td></td></t<>			•		•	•		

					ORINKING WATER S	DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WIP 1989	AM HAUKESBURY WTI	P 1989		
				WATER TREA	WATER TREATMENT PLANT		DISTR	DISTRIBUTION SYSTEM		
SITE	RAU	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
TYPE			STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
	VOLATILES	9 8 9 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8							
BENZENE (UG/L	-		DET'N LII	DET'N LIMIT = .050	GUIDELINE = 5.0 (B1)	5.0 (81)				
APR	BOL	BOL		BOL	•					BOL
MAY	BOL	BOL		BOL					•	BOL
	BOL	BOL		BOL	•			BOL	•	
JUL	BOL	BDL	•	BOL		•		01	•	
AUG	BOL	BDL	•	•		BOL	•	80L	•	•
SEP	80L	1> 050.	•	BOL				BOL		
OCT	BOL	BDL		BOL			•	BOL	•	•
NON	80L	BDL		BOL			•	80 L	•	•
DEC	B0L	BOL		.150 <7				BOL		
TOLUENE (UG/L	<u>^</u>		DET*N LI	DET'N LIMIT = .050	GUIDELINE = 24.0 (84)	24.0 (84)				
APR	BDL	.100 <t< td=""><td></td><td>.100 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>BOL</td></t<></td></t<>		.100 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>BOL</td></t<>						BOL
MAY	BOL	BOL		.050 <7						BOL
	BOL	.050 <ĭ	•	.050 <t< td=""><td></td><td></td><td></td><td>BOL</td><td></td><td>•</td></t<>				BOL		•
JUL	BOL	BOL		80L				2		
AUG	BOL	.200 <t< td=""><td>•</td><td>•</td><td></td><td>.100 <t< td=""><td></td><td>.150 <t< td=""><td></td><td>•</td></t<></td></t<></td></t<>	•	•		.100 <t< td=""><td></td><td>.150 <t< td=""><td></td><td>•</td></t<></td></t<>		.150 <t< td=""><td></td><td>•</td></t<>		•
SEP	80L	.100 <i< td=""><td>•</td><td>.100 <1</td><td></td><td></td><td></td><td>T> 000.</td><td>•</td><td>•</td></i<>	•	.100 <1				T> 000.	•	•
OCT	BOL	.050 ×T		.050 «I	•		•	801	•	•
NON	BOL	80 L		BDL	•			80L	•	•
DEC	BOL	80L		BOL		8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		BOL	4 0 9	
ETHYLBENZENE (UG/L	() ()		DET'N LI	0ET'N LIMIT = .050	GUIDELINE = 2.4 (84)	2.4 (B4)				
APR	BDL	.100 <t< td=""><td></td><td>BOL</td><td></td><td></td><td></td><td></td><td></td><td>°020 €</td></t<>		BOL						°020 €
MAY	BOL	BOL	•	BOL						BOL

					DRINKING WATER	DRIMKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989	RAM HAWKESBURY W	TP 1989		
				WATER TREA	WATER TREATMENT PLANT		01510	DISTRIBUTION SYSTEM		
SITE										
	RAW	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
TYPE										
			STANDING	STANDING FREEFLOW STANDING FREEFLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
MAY	BOL	BOL		BUL				BOL		
'n	BOL	BOL		BOL				10		
AUG	BOL	.050 <t< td=""><td></td><td></td><td></td><td>BOL</td><td></td><td>BOL</td><td></td><td></td></t<>				BOL		BOL		
SEP	BOL	BOL		BOL				BOL		
OCT	BOL	BOL		BOL				BOL		
NON	BOL	BOL		BOL				BOL		
DEC	BOL	.050 <t< td=""><td></td><td>.050 <t< td=""><td></td><td></td><td></td><td>.050 <t< td=""><td></td><td>•</td></t<></td></t<></td></t<>		.050 <t< td=""><td></td><td></td><td></td><td>.050 <t< td=""><td></td><td>•</td></t<></td></t<>				.050 <t< td=""><td></td><td>•</td></t<>		•
0-XYLENE (UG/L	r)		DET W LI	DET'N LINIT = .050	GUIDELINE = 300 (84)	300 (84)				
APR	BOL	BOL		.050 <t< td=""><td></td><td></td><td></td><td></td><td>•</td><td>BOL</td></t<>					•	BOL
MAY	BOL	BOL		BOL						BOL
	BOL	BOL		BOL				BOL		•
JUL	BDL	BOL		BOL				10		
AUG	BOL	BOL				BOL		BOL		
SEP	BOL	BOL		BOL				BOL		•
OCT	BOL	80L		BOL				BOL		
NON	BOL	80L		BOL				.100 <t< td=""><td>•</td><td></td></t<>	•	
DEC	BOL	BOL		BOL		•		BOL		•
STYRENE (UG/L	, ,	6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	DET'N LII	DET*W LIMIT = .050	GUIDELINE = 46.5 (02)	46.5 (02)	0 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
APR	BOL	1> 00≯°		.150 <t< td=""><td></td><td></td><td></td><td>•</td><td></td><td>350 <1</td></t<>				•		350 <1
MAY	.050 <t< td=""><td>.100 <t< td=""><td></td><td>.200 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>100 ≤1</td></t<></td></t<></td></t<>	.100 <t< td=""><td></td><td>.200 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>100 ≤1</td></t<></td></t<>		.200 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>100 ≤1</td></t<>						100 ≤1
	BOL	1> 00 ⁵ .		.300 <t< td=""><td></td><td></td><td></td><td>.250 <t< td=""><td></td><td></td></t<></td></t<>				.250 <t< td=""><td></td><td></td></t<>		
JUL	BOL	.100 <t< td=""><td></td><td>.250 <t< td=""><td></td><td></td><td></td><td>n</td><td></td><td></td></t<></td></t<>		.250 <t< td=""><td></td><td></td><td></td><td>n</td><td></td><td></td></t<>				n		
AUG	BOL	.300 <t< td=""><td></td><td></td><td></td><td>.150 <7</td><td>•</td><td>.300 <t< td=""><td></td><td></td></t<></td></t<>				.150 <7	•	.300 <t< td=""><td></td><td></td></t<>		
SEP	BOL	.050 <t< td=""><td></td><td>BOL</td><td></td><td></td><td></td><td>BOL</td><td></td><td></td></t<>		BOL				BOL		

₩

SITE										
SITE				WATER TREATMENT PLANT	THENT PLANT		DISTR	DISTRIBUTION SYSTEM		
10000	RAW	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
1176			STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
100	- Co	i de						• 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 6 0 9	化用位用 建金属 医皮肤 医骨骨 医黄
0CT	BOL	80L 100 /T		B0L	•			.050 <1		
DEC	BOL	.250 <1		80L .150 <t< td=""><td></td><td></td><td></td><td>.350 <t< td=""><td></td><td></td></t<></td></t<>				.350 <t< td=""><td></td><td></td></t<>		
CHLOROFORM (UG/L	NG/L)	* * * * * * * * * * * * * * * *	DET'N LIMIT = .100	17 = .100	GUIDELINE = 350 (A1+)	50 (A1+)			6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
APR	.500 <t< td=""><td>1.700</td><td></td><td>1.800</td><td></td><td></td><td></td><td></td><td></td><td>1.600</td></t<>	1.700		1.800						1.600
MAY	BOL	47.300		45.900						44.200
	.400 <⊺	70.600		67.600				57.900		
JUL	.400 <⊺	78.700		78.100				11		
AUG	.400 <⊺	101.000				84.000		67,000		
SEP	.200 <t< td=""><td>68.300</td><td></td><td>57.100</td><td></td><td></td><td></td><td>50,700</td><td>•</td><td></td></t<>	68.300		57.100				50,700	•	
0CT	.300 <t< td=""><td>80.000</td><td></td><td>53.700</td><td></td><td>•</td><td></td><td>50.700</td><td></td><td>•</td></t<>	80.000		53.700		•		50.700		•
NON	BDL	46.300		44.900				49.000	•	
DEC	.300 <⊺	50.900 APS		27.200 APS	,	٠	•	26.000 APS	•	•
111, TRICHLO	111, TRICHLOROETHANE (UG/L	<u> </u>	DET'N LIMIT = .020	IT = .020	GUIDELINE = 200 (D1)	00 (D1)			9 8 8 8 8 9 9 8 8 8 8 8 8 8 8 8 8 8 8 8	. 2 5 2 2 2 4 2 4 5 5 5 5 5 5 5 5 5 5 5 5
APR	.040 <⊺	.040 «T		.020 <1						BOL
MAY	BOL	BOL		BOL						BOL
	BOL	BUL		BOL				BOL		•
JUL	BDL	BOL		BOL				11		•
AUG	.020 <t< td=""><td>80L</td><td></td><td>•</td><td></td><td>BOL</td><td></td><td>.040 <t< td=""><td></td><td>٠</td></t<></td></t<>	80L		•		BOL		.040 <t< td=""><td></td><td>٠</td></t<>		٠
SEP	BOL	BOL		BOL				BOL	•	
0CT	BOL	108		BOL				BDL		•
NON	BOL	80 L		BOL				BDL		
DEC	BOL	801		BOL				BOL		•

III IVE M TRE INFO SITE					WATER TREA	WATER TREATMENT PLANT		DISTR	DISTRIBUTION SYSTEM			
TRATED SITE <												
STANDING REE LOW STANDING LOW STANDING REE LOW STANDING LOW LOW LOW <thlow< th=""> <thlow< thr=""></thlow<></thlow<>	ń		TREATED	SITE 1		SITE 3		SITE 2		SITE 4		
STANDING FREF ICU STANDING	T	YPE										
V1) DET'N LINIT = .100 GJDELINE = 5.0 (01) DEL 001 001 001 DET 1500 010 010 1400 1.550 011 010 1500 1.550 011 010 1500 1.550 011 010 1500 1.550 011 010 1500 1.550 011 010				STANDING	FREE FLOW	STANDING		STAND ING	FREE FLOW	STANDING	FREE FLOW	
80 80<	TRICHLORO	ETHYLENE (UG/L	<u>,</u>	DET'N LI	IMIT = .100	GUIDELINE =	5.0 (01)		9	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	****	
B0L B0L <td>APR</td> <td>BOL</td> <td>BDL</td> <td></td> <td>108</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ION</td>	APR	BOL	BDL		108						ION	
BU BU<	MAY	BOL	108		BOL						BOL	
B(L B(L <td></td> <td>BOL</td> <td>BOL</td> <td></td> <td>BOL</td> <td></td> <td></td> <td></td> <td>108</td> <td></td> <td></td>		BOL	BOL		BOL				108			
B0L E0L E0L <th e0l<="" td="" tr<=""><td>JUL</td><td>BOL</td><td>BOL</td><td></td><td>BOL</td><td></td><td></td><td></td><td>n</td><td></td><td></td></th>	<td>JUL</td> <td>BOL</td> <td>BOL</td> <td></td> <td>BOL</td> <td></td> <td></td> <td></td> <td>n</td> <td></td> <td></td>	JUL	BOL	BOL		BOL				n		
B0L B0L <td>AUG</td> <td>108</td> <td>BOL</td> <td></td> <td></td> <td></td> <td>BOL</td> <td></td> <td>108</td> <td></td> <td></td>	AUG	108	BOL				BOL		108			
BUL BUL BUL COD of 1 COD of 1 <thcod 1<="" of="" th="" thcod=""> COD of 1</thcod> <td>SEP</td> <td>BOL</td> <td>BOL</td> <td></td> <td>BOL</td> <td></td> <td></td> <td></td> <td>108</td> <td></td> <td>•</td>	SEP	BOL	BOL		BOL				108		•	
BUL BUL <td>001</td> <td>BOL</td> <td>BOL</td> <td></td> <td>BOL</td> <td></td> <td></td> <td></td> <td>.200 <t< td=""><td></td><td></td></t<></td>	001	BOL	BOL		BOL				.200 <t< td=""><td></td><td></td></t<>			
P01 - P01 P01 - P01 P01 P01 P01 </td <td>NON</td> <td>BOL</td> <td>108</td> <td></td> <td>BOL</td> <td></td> <td></td> <td></td> <td>801</td> <td>•</td> <td>•</td>	NON	BOL	108		BOL				801	•	•	
) DET*N LINIT = .050 GJIDELINE = 350 (A1+) .100 <1	DEC	BOL	BOL	•	80L				BOL	,	•	
.100 <f< td=""> .1500 <f< td=""> .1500 <f< td=""> .1500 1.400 1.500 1.500 .1500 .1600 1.500 1.750 .160 .160 1.900 1.750 .1750 .1400 2.800 2.200 .1750 .160 2.100 1.750 .1750 .100 2.100 1.750 .1750 .160 2.100 1.750 .1200 .1200 2.100 1.750 .1200 .1200 2.100 1.750 .1200 .1200 2.100 1.750 .1200 .1200 1.900 .1200 .1200 .1200 1.000 .1200 .1200 .1200 1.000 .1200 .1200 .1200 1.000 .1200 .1200 .1200 1.000 .1200 .1200 .1200 .1000 .1200 .1200 .1200</f<></f<></f<>	DI CHLOROBF	TOMOMETHANE (UG/L	^	DET'N LI	MIT = .050	GUIDELINE =	350 (A1+)			* * * * * * * * * * * * * * * * * * * *	*********	
1,400 1,500 1,500 1,500 1,600 1,150 1,150 1,160 1,600 1,750 2,100 1,170 2,800 2,200 2,200 2,500 2,100 1,750 1,700 1,500 2,100 1,750 1,750 1,000 2,100 1,750 1,200 2,500 2,100 1,750 1,200 2,500 1,900 1,750 1,200 1,200 1,900 1,250 1,200 1,200 1,000 1,250 1,200 1,200 1,000 1,200 1,200 1,200 1,000 1,200 1,200 1,200	APR	BOL	.100 «T		.150 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>.100 .</td></t<>						.100 .	
1.650 1.550 1.550 1.400 1.900 1.750 2.100 1.700 2.100 2.100 2.200 2.000 2.100 1.750 2.000 2.000 2.100 1.750 2.000 2.000 2.100 1.750 1.700 1.600 2.100 1.750 1.700 1.500 1.900 1.750 1.700 1.200 1.900 1.550 1.200 1.200 1.900 1.550 1.200 1.200 1.900 1.250 1.200 1.200 1.900 1.200 1.200 1.200 1.900 1.200 1.200 1.200 1.900 1.200 1.200 1.200	MAY	BOL	1.400		1.500						1.400	
1,900 1,750 1,750 1,170 2,800 2,300 2,500 2,500 2,100 1,750 2,200 2,500 2,100 1,750 2,200 2,500 2,100 1,750 2,000 1,500 1,900 1,750 2,170 1,500 1,900 1,750 1,500 1,500 1,900 1,500 1,500 1,500 1,900 1,250 1,500 1,200 1,900 1,250 1,200 1,200 1,901 2016LINE # 550 (AI+) 1,200 901 901 1 901 1,000 901 1 1		BOL	1.650		1.550				1.400			
2.800 2.800 2.500 2.500 2.300 2.200 2.000 1.500 2.100 1.750 1.500 1.600 2.100 1.750 1.500 1.600 2.100 1.750 1.200 1.200 1.900 1.250 1.200 1.200 1.900 1.250 1.200 1.200 1.00 2.1120 2.170 1.200 1.00 2.100 2.170 1.200 1.00 2.100 2.170 1.200 1.00 2.100 1.200 1.200 1.00 2.100 2.170 1.200 1.00 2.100 2.161 1.200 1.00 2.100 1.200 1.200 1.00 2.100 1.200 1.200 1.00 2.100 1.200 1.200 1.00 2.100 1.200 1.200 1.00 2.100 1.200 1.200	JUL	BOL	1.900		1.750	•			2			
2.300 2.200 2.200 2.000 2.100 1.750 1.750 1.750 2.100 1.750 1.200 2.100 1.250 1.200 1.900 1.250 1.200 1.900 1.250 1.200 1.900 1.250 1.200 1.900 1.250 1.200 1.900 1.250 1.200 1.900 1.250 1.200 1.900 1.250 1.200 1.900 1.250 1.200 1.900 1.200 1.200 1.000 2010£LIKE = 350 (A1+) 1.000 1.200 1.000 1.200	AUG	BOL	2.800				3.000		2.500	•		
2.100 . 1.750 . 2.100 . 1.600	SEP	BOL	2.300	•	2.200	•	•		2.000			
2.150 . 3.000 . 2.700 . 1.900 . 1.200 . 1.200 . 1.120 . 1.200 . . 1.200 . . 1.200 . 1.201 1.201 1.201 1.201 1.202 1.201 1.201 1.202 1.203 1.204 1.204 1.004 	001	BOL	2.100		1.750				1.600		•	
1.900 . 1.250 . 1.250 . 1.200	NON	BOL	2.150		3.000				2.700			
) DET'W LIMIT = .100 GUIDELLIKE = 350 (A1+) BOL . BOL . BOL	DEC	BOL	1.900		1.250	•	•	•	1.200			
801 801	CHLOROD I BF	TOMOMETHANE (UG/L	(DET'N LI	MIT = .100	GUIDELINE =	350 (A1+)					
Bol Bol Bol Bol Bol 100<	APR	BOL	BOL		BDL						BOL	
.100 <t .<="" bdl="" td=""><td>MAY</td><td>BOL</td><td>108</td><td></td><td>BOL</td><td></td><td></td><td></td><td></td><td></td><td>BOL</td></t>	MAY	BOL	108		BOL						BOL	
		BOL	.100 ×T		BOL				BOL			

					DRINKING WATER	DRINKING WATER SURVEILLANCE PROGRAM HAWKESBURY WTP 1989	RAM HAWKESBURY WI	ip 1989		
				WATER TRE	WATER TREATMENT PLANT		DISTR	DISTRIBUTION SYSTEM		
SITE	LE									
TYPF	RAW	TREATED	SITE 1		SITE 3		SITE 2		SITE 4	
			STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW	STANDING	FREE FLOW
JUL	BOL	BOL		100 47				Ξ		
AUG	BOL	.100 «T				ION		IUa		•
SEP	BOL	BDL		BOL				108		
OCT	BDL	BOL		BOL			•	BOL		
NON	BUL	BOL		.100 <t< td=""><td></td><td></td><td></td><td>.200 <t< td=""><td></td><td></td></t<></td></t<>				.200 <t< td=""><td></td><td></td></t<>		
DEC	BDL	BOL	٠	BOL				BOL		
T-CNLOROETA	T-CNLOROETNYLENE (UG/L	`	DET'N LIMIT = .050	r = .050	GUIDELINE = 10.0 (C2)	10.0 (C2)			* * * * * * * * * * * *	
APR	BOL	BOL		.050 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>150.51</td></t<>						150.51
MAY	BOL	BOL		BOL						108
	BOL	108		BDL				BOL		
JUL	BOL	BOL		BDL				0		
AUG	BOL	.100 <t< td=""><td>•</td><td>•</td><td></td><td>BDL</td><td></td><td>BOL</td><td></td><td></td></t<>	•	•		BDL		BOL		
SEP	BOL	BOL		BDL				BOL		
OCT	BOL	BOL		BDL				BOL		
NON	BOL	BOL		BDL				BOL		
DEC	BOL	BOL	•	BDL				BOL		
1,4 DICHLOR	1,4 DICHLOROBENZEME (UG/L	, ,	DET'N LIMIT = .100	r = .100	GUIDELINE = 5.0 (81)	5.0 (81)		***		
APR	BOL	BDL		BDL					,	ICH
MAY	BOL	BOL		BOL						BOL
	BOL	BOL		BDL				BOL		
ากเ	BOL	BOL		BOL	•			D)	•	
AUG	BOL	BOL				BDL		BDL		
SEP	BOL	BUL		BOL	•			BOL		
0CT	BOL	BOL		.200 <t< td=""><td></td><td></td><td></td><td>BOL</td><td></td><td></td></t<>				BOL		

					DRINKING WATER	DRINKING WATER SURVEILLANCE PROGRAM NAWKESBURY WTP 1989	RAM NAUKESBURY UI	rp 1989		
				WATER TREA	WATER TREATMENT PLANT		DISTR	DISTRIBUTION SYSTEM		
SITE										
TYPE	KAW	IKEALED	SILE 1		SITE 3		SITE 2		SITE 4	
			STANDING	FREE FLOW	STANDING	FREE FLOW	STAND ING	FREE FLOW	STAND ING	FREE FLOW
	4	č				2 8 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8				
DEC	BOL		•••	BUL				BOL		
TOTL TRIHALOMETHANES (UG/	TOTL TRIHALCHETHANES (UG/L	, ,) DET'N LIMIT = .500	DET'N LIMIT = .500	GUIDELINE = 350 (A1)	GUIDELINE = 350 (A1)				
APR	.500 <t< td=""><td>1.800 <t< td=""><td></td><td>1.950 <t< td=""><td></td><td>•</td><td></td><td></td><td></td><td>1.700 <</td></t<></td></t<></td></t<>	1.800 <t< td=""><td></td><td>1.950 <t< td=""><td></td><td>•</td><td></td><td></td><td></td><td>1.700 <</td></t<></td></t<>		1.950 <t< td=""><td></td><td>•</td><td></td><td></td><td></td><td>1.700 <</td></t<>		•				1.700 <
MAY	BOL	48.700		47.400						45.600
	BOL	72.350		69.150				59.300	•	
JUL	BOL	80.600		79.950				2		
AUG		103.900				87.000		69.500		•
SEP	BOL	70.600		59.300				52.700		
OCT	BOL	82.100		55.450				52.300	•	•
NON	BOL	48.450		48.000				51.900	•	
DEC	BOL	52.850		28.450				27.250	٠	•

TRACE LEVELS OF TOLUENE ARE LABORATORY ARTIFACTS DERIVED FROM THE AMALYTICAL METHODOLOGY.

TRACE LEVELS OF STYREME ARE CONSIDERED TO BE LABORATORY ARTIFACTS RESULTING FROM THE LABORATORY SHIPPING COMTAINERS.

	I	DETECTIC	N	
SCAN/PARAMETER	UNIT	LIMIT	GUIDE	LINE
BACTERIOLOGICAL				
STANDARD PLATE COUNT MEMBRANE	CT/ML	0	500/M	1 (1 1)
FILTRATION	01/111	0	500711	D(111)
P/A BOTTLE		0	0	(A1*)
TOTAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	5/100m	L(A1)
TOTAL COLIFORM BACKGROUND MF	CT/100ML	0	N/A	
CHLOROAROMATICS				
HEXACHLOROBUTADIENE	NG/L	1.000	450.	(D4)
1,2,3-TRICHLOROBENZENE	NG/L	5.000	10000	(I)
1,2,3,4-TETRACHLOROBENZENE	NG/L	1.000	10000	(I)
1,2,3,5-TETRACHLOROBENZENE	NG/L		10000	(I)
1,2,4-TRICHLOROBENZENE	NG/L		10000	(I)
1,2,4,5-TETRACHLOROBENZENE	NG/L		38000	(D4)
1,3,5-TRICHLOROBENZENE	NG/L		10000	(D4)
HEXACHLOROBENZENE	NG/L	1.0	10.	(C1)
HEXACHLOROETHANE	NG/L		1900.	(D4)
OCTACHLOROSTYRENE	NG/L	1.000		
PENTACHLOROBENZENE	NG/L		74000	(D4)
2,3,6-TRICHLOROTOLUENE	NG/L	5.000		
2,4,5-TRICHLOROTOLUENE 2,6,A-TRICHLOROTOLUENE	NG/L	5.000		
2, 8, A-IRICHLOROIOLUENE	NG/L	5.000	N/A	
CHLOROPHENOLS				
2,3,4-TRICHLOROPHENOL	NG/L	50.	N/A	
2,3,4,5-TETRACHLOROPHENOL	NG/L	50.	N/A	
2,3,5,6-TETRACHLOROPHENOL	NG/L	50.	N/A	
2,4,5-TRICHLOROPHENOL	NG/L	50. 2	600000	(D4)
2,4,6-TRICHLOROPHENOL	NG/L	50.	2000.	(B4)
PENTACHLOROPHENOL	NG/L	50.	30000.	(B4)
CHEMISTRY (FLD)				
FIELD COMBINED CHLORINE RESIDUAL	MG/L	N/A	N/A	
FIELD FREE CHLORINE RESIDUAL	MG/L	N/A	N/A	
FIELD TOTAL CHLORINE RESIDUAL	MG/L	N/A	N/A	
FIELD PH	DMSNLESS	N/A	6.5-8.	5(A4)
FIELD TEMPERATURE	°c	N/A	<15 °C	
FIELD TURBIDITY	FTU	N/A		(A1)
CHEMISTRY (LAB)				
ALKALINITY	MG/L	.200	30-50	0(24)
CALCIUM	MG/L MG/L	.100		
CYANIDE	MG/L MG/L	.001		(A1)
CHLORIDE	MG/L MG/L	.200		
COLOUR	TCU	. 5		(A3)
CONDUCTIVITY	UMHO/CM	1.	400.	
FLUORIDE	MG/L	.01		(A1)
HARDNESS	MG/L	.50	80-10	
MAGNESIUM	MG/L	.05	30.	(F2)

	DETECTION		
SCAN/PARAMETER	UNIT		IDELINE
NITRITE	MG/L	.001	1.0 (A1)
TOTAL NITRATES	MG/L	.02 1	0. (A1)
NITROGEN TOTAL KJELDAHL	MG/L		/A
PH	DMSNLESS		
PHOSPHORUS FIL REACT	MG/L	.0005 N	
PHOSPHORUS TOTAL	MG/L	.002	.40(F2)
TOTAL SOLIDS	MG/L	1. 50	0. (A3)
TURBIDITY	FTU	.02	1.0 (A1)
METALS			
	UG/L	.050 10	0. (A4)
ALUMINUM	UG/L UG/L		0. (F3)
ANTIMONY ARSENIC	UG/L		0. (A1)
	UG/L UG/L	.020 100	
BARIUM BORON	UG/L UG/L	.200 500	
	UG/L		0.20 (H)
BERYLLIUM CADMIUM	UG/L		5.0 (A1)
COBALT	UG/L UG/L	.020 100	
CHROMIUM	UG/L UG/L		0. (A1)
COPPER	UG/L	.100 100	
IRON	UG/L UG/L	5.0 30	
MERCURY	UG/L UG/L		1.0 (A1)
MANGANESE	UG/L	.050 5	0. (A3)
MOLYBDENUM	UG/L	.020 50	
NICKEL	UG/L		
LEAD	UG/L	.100 5 .020 5	0. (A1)
SELENIUM	UG/L	200 1	0. (A1)
SILVER	UG/L	.020 5	0. (A1)
STRONTIUM	UG/L	.100 200	
THALLIUM	UG/L		
TITANIUM	UG/L	.010 1 .100 N	/A
URANIUM	UG/L		0. (A2)
VANADIUM	UG/L	.020 10	0. (H)
ZINC	UG/L	.020 500	0. (A3)
PHENOLICS			
PHENOLICS (UNFILTERED REACTIVE)	UG/L	. 2	2.0 (A3)
PESTICIDES & PCB			
ALDRIN	NG/L	1.0 70	0. (A1)
AMETRINE	NG/L	50. 30000	
ATRAZINE	NG/L	50. 6000	
ALPHA HEXACHLOROCYCLOHEXANE (BHC)	NG/L	1.0 70	0. (G)
BETA HEXACHLOROCYCLOHEXANE (BHC)	NG/L		0. (G)
GAMMA HEXACHLOROCYCLOHEXANE (LINDANE)		1.0 400	0. (A1)
ALPHA CHLORDANE	NG/L	2.0 700	0. (A1)
GAMMA CHLORDANE	NG/L	2.0 700	0. (A1)
BLADEX	NG/L	100. 1000	
DIELDRIN	NG/L		0. (A1)
METHOXYCHLOR	NG/L	5.0 90000	0. (B1)
ENDOSULFAN 1 (THIODAN I)	NG/L	2.0 7400	0. (D4)
ENDOSULFAN 2 (THIODAN II)	NG/L	4.0 7400	0. (D4)
ENDRIN	NG/L	4.0 20	00. (A1)
ENDOSULFAN SULPHATE (THIODAN SULPHATE)NG/L		1/A
HEPTACHLOR EPOXIDE	NG/L	1.0 300	00. (Al)

DETECTION SCAN/PARAMETER UNIT LIMIT GUIDELINE HEPTACHLOR NG/L 1.0 3000. (A1) METOLACHLOR NG/L 5.0 N/A OXYCHLORDANE NG/L 2.0 3000. (A1) OYCHLORDANE NG/L 2.0 3000. (A1) PCB NG/L 2.0 3000. (A1) PCB NG/L 5.0 3000. (A1) PCB NG/L 5.0 N/A ALACHLOR NG/L 50. 500. (D2) PROMETONE NG/L 50. 1000. (B2) PROMETONE NG/L 50. 1000. (B2) SENCOR (METRIBUZIN) NG/L 10.0 N/A AUTHRACENE NG/L 10.0 N/A FUOMANTHENE NG/L 20.0 N/A BENZO(A) ANTHRACENE NG/L 20.0 N/A BENZO(A) ANTHRACENE NG/L 5.0 N/A					
HEPTACHLOR NG/L 1.0 3000. (A) METOLACHLOR NG/L 5.0 N/A METOLACHLOR NG/L 5.0 N/A O,P-DDT NG/L 5.0 N/A O,P-DDT NG/L 2.0 N/A O,P-DDD NG/L 2.0 3000. (A) PCB NG/L 1.0 30000. (A) PPDDT NG/L 5.0 N/A ALRATONE NG/L 5.0. N/A PROMETONE NG/L 50. 16000. (B) PROMETRINE NG/L 50. 10000. (B) SENCOR (METRIBUZIN) NG/L 100. N/A PHOLYAROMATIC HYDROCARBONS POLYAROMATIC HYDROCARBONS PHENANTHRENE NG/L 10.0 N/A PANETRYLE NG/L 10.0 N/A PHENZO(A) JANTHRACENE NG/L 20.0 N/A BENZO(A) JANTHRACENE NG/L 20.0 N/A BENZO(B)		I	DETECTION		
METOLACHLOR NG/L 500. 50000. (B3) MIREX NG/L 5.0 N/A OXYCHLORDAME NG/L 5.0 N/A O,P-DDT NG/L 5.0 N/A O,P-DDD NG/L 5.0 30000. (A1) PCB NG/L 5.0 N/A PPDDE NG/L 5.0 30000. (A1) PPDDT NG/L 5.0 30000. (A1) ATRATONE NG/L 50. 35000. (D3) PROMETONE NG/L 50. 16000. (D3) PROMETRINE NG/L 50. 10000. (B3) SENCOR (METRIBUZIN) NG/L 10.0 N/A PLOYAROMATIC EYDROCARBONS POLYAROMATIC EYDROCARBONS N/A PHENANTHENE NG/L 20.0 N/A ANTHRACENE NG/L 20.0 N/A PHEVENS NG/L 20.0 N/A DIMETHYL BENZO (A) ANTHRACENE NG/L 20.0	SCAN/PARAMETER	UNIT	LIMIT	GUIDE	LINE
MIREX NG/L 5.0 N/A OXICHLORDANE NG/L 2.0 N/A OQT-CHLORDANE NG/L 2.0 N/A PCB NG/L 2.0.0 30000. (A1) PCB NG/L 1.0 30000. (A1) PPDDE NG/L 1.0 30000. (A1) PPDDT NG/L 5.0 N/A ATRATONE NG/L 50. 35000. (D2) PROMETONE NG/L 50. 16000. (D2) PROPAZINE NG/L 50. 10000. (B3) SIMAZINE NG/L 10.0 N/A ANTHRACENE NG/L 10.0 N/A PUSAROMATIC HYDROCARBONS PUSAROMATIC HYDROCARBONS N/A PHENANTHENE NG/L 20.0 N/A BENZO(A) ANTHRACENE NG/L 20.0 N/A BENZO(A) ANTHRACENE NG/L 20.0 N/A DIMETHYL BENZO(A) ANTHRACENE NG/L 10.0 <t< td=""><td>HEPTACHLOR</td><td>NG/L</td><td>1.0</td><td>3000.</td><td>(A1)</td></t<>	HEPTACHLOR	NG/L	1.0	3000.	(A1)
MIREX NG/L 5.0 N/A OXICHLORDANE NG/L 2.0 N/A OQT-CHLORDANE NG/L 2.0 N/A PCB NG/L 2.0.0 30000. (A1) PCB NG/L 1.0 30000. (A1) PPDDE NG/L 1.0 30000. (A1) PPDDT NG/L 5.0 N/A ATRATONE NG/L 50. 35000. (D2) PROMETONE NG/L 50. 16000. (D2) PROPAZINE NG/L 50. 10000. (B3) SIMAZINE NG/L 10.0 N/A ANTHRACENE NG/L 10.0 N/A PUSAROMATIC HYDROCARBONS PUSAROMATIC HYDROCARBONS N/A PHENANTHENE NG/L 20.0 N/A BENZO(A) ANTHRACENE NG/L 20.0 N/A BENZO(A) ANTHRACENE NG/L 20.0 N/A DIMETHYL BENZO(A) ANTHRACENE NG/L 10.0 <t< td=""><td>METOLACHLOR</td><td>NG/L</td><td>500.</td><td>50000.</td><td>(B3)</td></t<>	METOLACHLOR	NG/L	500.	50000.	(B3)
OXYCHLORDANE NG/L 2.0 N/A O,P-DDT NG/L 5.0 30000. (A1) PCB NG/L 5.0 N/A PPDDE NG/L 5.0 N/A PPDDE NG/L 5.0 30000. (A1) PPDDT NG/L 5.0 30000. (A1) ATRATONE NG/L 50. N/A ALACHLOR NG/L 50. 16000. (D2) PROMETINE NG/L 50. 10000. (B3) SENCOR (METRIBUZIN) NG/L 10.0 N/A ANTHRACENE NG/L 10.0 N/A PHENANTHENE NG/L 10.0 N/A PHENANTHENE NG/L 20.0 20.0 (B4) PYRENE NG/L 10.0 N/A A PHENANTHENE NG/L 20.0 N/A BENZO(A) ANTHRACENE NG/L 20.0 N/A BENZO(A) ANTHRACENE NG/L 10.0 N/A		NG/L		N/A	. ,
PCB NG/L 20.0 3000. (A2) O,P-DDD NG/L 5.0 N/A PPDDE NG/L 1.0 30000. (A1) ATRATONE NG/L 5.0 30000. (A1) ATRATONE NG/L 50. S000. (A1) ATRATONE NG/L 50. S000. (D2) PROMETONE NG/L 50. 16000. (D2) PROMETRINE NG/L 50. 10000. (B3) SENCOR (METRIBUZIN) NG/L 10. N/A ANTHRACENE NG/L 10.0 N/A POLYAROMATIC EYDROCARBONS POLYAROMATIC EYDROCARBONS POLYAROMATICENE NG/L 20.0 N/A PHENANTHRENE NG/L 10.0 N/A ANTHRACENE NG/L 20.0 N/A PHUDARNTHENE NG/L 20.0 N/A BENZO(A) NATHRACENE NG/L 20.0 N/A PHENSENE NG/L 50.0 N/A BENZO(B) FLUORANTHENE	OXYCHLORDANE		2.0		
PCB NG/L 20.0 3000. (A2) O,P-DDD NG/L 5.0 N/A PPDDE NG/L 5.0 N/A PPDDT NG/L 5.0 3000. (A1) ATRATONE NG/L 50. 3000. (A1) ATRATONE NG/L 50. 52500. (D3) PROPAZINE NG/L 50. 16000. (E2) PROMETONE NG/L 50. 10000. (E3) SENCOR (METRIBUZIN) NG/L 100. N/A ANTHRACENE NG/L 10.0 N/A ANTHRACENE NG/L 20.0 42000. (D4) PYENENE NG/L 20.0 N/A N/A FLUORANTHENE NG/L 20.0 N/A N/A PRENZO(A) NATHRACENE NG/L 20.0 N/A BENZO(B) FLUORANTHENE NG/L 50.0 N/A BENZO(C) SILORANTHENE NG/L 10.0 N/A BENZO(C) F	O, P-DDT	NG/L	5.0	30000.	(A1)
O, P-DDD NG/L 5.0 N/A PPDDE NG/L 1.0 30000. (A1) PPDDT NG/L 50. 30000. (A1) ATRATONE NG/L 50. N/A ALACHLOR NG/L 50. 10000. (B2) PROMETONE NG/L 50. 16000. (B2) PROMETONE NG/L 50. 10000. (B3) SENCOR (METRIBUZIN) NG/L 100. 80000. (B2) SIMAZINE NG/L 10.0 N/A ANTHRACENE NG/L 10.0 N/A ANTHRACENE NG/L 20.0 N/A PHENANTHENE NG/L 20.0 N/A BENZO(A)ANTHRACENE NG/L 20.0 N/A BENZO(A)ANTHRACENE NG/L 50.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(K) FLUORANTHENE NG/L 10.0 N/A BENZO(K) FLORANTHENE NG/L		NG/L	20.0	3000.	(A2)
PPDDE NG/L 1.0 30000. (A1) ATRATONE NG/L 5.0 30000. (A1) ATRATONE NG/L 50. N/A ALACHLOR NG/L 50. S0000. (A1) PROMETONE NG/L 50. 16000. (D2) PROPATINE NG/L 50. 16000. (B2) PROPATINE NG/L 50. 10000. (B3) SENCOR (METRIBUZIN) NG/L 100. 80000. (B2) PHENANTHRENE NG/L 1.0 N/A ANTHRACENE NG/L 20.0 N/A PLUQAROMATIC HYDROCARBONS PHENANTHRENE NG/L 20.0 N/A PLUDANTHENE NG/L 20.0 N/A BENZO(A) ANTHRACENE NG/L 20.0 N/A BENZO(C) ANTHRACENE NG/L 50.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(C) PYRENE NG/L 10.0 N/A BENZO(C) FLUORANTHENE NG/L 10.0 N/A BENZO(C) FLUORANTHENE NG/L <td>O, P-DDD</td> <td></td> <td>5.0</td> <td>N/A</td> <td>. ,</td>	O, P-DDD		5.0	N/A	. ,
ATRATONE NG/L 50. N/A ALACHLOR NG/L 500. 35000. (D2) PROMETONE NG/L 50. 16000. (D2) PROMETONE NG/L 50. 1000. (B3) SENCOR (METRIBUZIN) NG/L 100. NG/L 50. 1000. (B3) PHENANTHRENE NG/L 100. N/A N/A SU000. (B3) PHENANTHRENE NG/L 20.0 MZ000. (D4) ANTHRACENE NG/L 20.0 N/A SENZOR (LA)ANTHRACENE NG/L 20.0 N/A BENZO (A)ANTHRACENE NG/L 50.0 N/A BENZO (B)FURORANTHENE NG/L 50.0 N/A BENZO (B)FURORANTHENE NG/L 10.0 N/A BENZO (C) FURORANTHENE NG/L 10.0 N/A BENZO (C) FURORANTHENE NG/L 10.0 N/A BENZO (C) FURORANTHENE NG/L 10.0 N/A DIEENZO (C) FURORANTHENE <td></td> <td>NG/L</td> <td>1.0</td> <td>30000.</td> <td>(A1)</td>		NG/L	1.0	30000.	(A1)
ATRATONE NG/L S0. N/A ALACHLOR NG/L S0. 35000. (D2) PROMETONE NG/L S0. 16000. (D2) PROMETONE NG/L S0. 16000. (D2) PROMETNYNE NG/L S0. 1000. (B3) SENCOR (METRIBUZIN) NG/L 100. N/A ANTHRACENE NG/L 100. N/A ANTHRACENE NG/L 20.0 V2000. (D4) PYENEN NG/L 20.0 N/A BEN20(A) ANTHRACENE NG/L 20.0 N/A BEN20(A) ANTHRACENE NG/L 20.0 N/A BEN20(B) FULORANTHENE NG/L 50.0 N/A BEN20(B) FULORANTHENE NG/L 50.0 N/A BEN20(B) FULORANTHENE NG/L 10.0 N/A BEN20(C) FURENE NG/L 10.0 N/A BEN20(C) FURENE NG/L 10.0 N/A BEN20(C) FURANTHENE NG/L 10.0 N/A BEN20(C) FURANTHENE	PPDDT	NG/L	5.0	30000.	(A1)
PROMETONE NG/L S0. \$2500. (D3) PROPAZINE NG/L S0. 16000. (D2) PROMETRYNE NG/L S0. 1000. (B3) SENCOR (METRIBUZIN) NG/L 100. 80000. (B2) SIMAZINE NG/L 100. N/A POLYAROMATIC EYDROCARBONS NG/L 10.0 N/A PHENANTHRENE NG/L 20.0 N/A ANTHRACENE NG/L 20.0 N/A PYRENE NG/L 20.0 N/A BENZO(A)ANTHRACENE NG/L 50.0 N/A BENZO(E) PYRENE NG/L 50.0 N/A BENZO(E) PYRENE NG/L 50.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(B) FLUORANTHENE NG/L 10.0 N/A BENZO(B) FLUORANTHENE NG/L 10.0 N/A DIMETHYLE NG/L 10.0	ATRATONE	NG/L	50.	N/A	
PROPAZINE NG/L 50. 16000. (D2) PROMETRYNE NG/L 50. 1000. (B3) SENCOR (METRIBUZIN) NG/L 100. 80000. (B2) SIMAZINE NG/L 100. 80000. (B2) POLYAROMATIC HYDROCARBONS NG/L 10.0 N/A PHENANTHRENE NG/L 10.0 N/A ANTHRACENE NG/L 20.0 N/A PYRENE NG/L 20.0 N/A BENZO(A)ANTHRACENE NG/L 50.0 N/A BENZO(A)ANTHRACENE NG/L 50.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(A), PYRENE NG/L 10.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(G), PYRENE NG/L	ALACHLOR	NG/L	500.	35000.	(D2)
PROPAZINE NG/L 50. 16000. (D2) PROMETRYNE NG/L 50. 1000. (B3) SENCOR (METRIBUZIN) NG/L 100. 80000. (B2) SIMAZINE NG/L 100. 80000. (B2) PARAMATIC HYDROCARBONS POLYAROMATIC HYDROCARBONS 100 N/A PHENANTHRENE NG/L 10.0 N/A ANTHRACENE NG/L 20.0 N/A EUCORANTHENE NG/L 20.0 N/A BENZO(A)ANTHRACENE NG/L 50.0 N/A BENZO(E) PYRENE NG/L 50.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(E) PYRENE NG/L 10.0 N/A BENZO(A) HYRENE NG/L 10.0 N/A BENZO(A) HYRENE NG/L 10.0 N/A BENZO(B) FUORANTHENE NG/L 10.0 N/A DIRENZO(A, H) PRENIEN NG/L<	PROMETONE	NG/L	50.	52500.	(D3)
SENCOR (METRIBUZIN) NG/L 100. 80000. (B2) SIMAZINE NG/L 50. 10000. (B3) POLYAROMATIC HYDROCARBONS PHENANTHRENE NG/L 1.0 N/A ANTHRACENE NG/L 1.0 N/A FLUORANTHENE NG/L 20.0 N/A PYRENE NG/L 20.0 N/A BENZO (A) ANTHRACENE NG/L 20.0 N/A BENZO (A) ANTHRACENE NG/L 50.0 N/A BENZO (A) ANTHRACENE NG/L 10.0 N/A BENZO (A) FYRENE NG/L 10.0 N/A BENZO (A) FYRENE NG/L 10.0 N/A BENZO (A) FUORANTHENE NG/L 10.0 N/A BENZO (A) PYRENE NG/L 10.0 N/A BENZO (A) PYRENE NG/L 20.0 N/A IDBENZO (A, H) ANTHRACENE NG/L 20.0 N/A DIBENZO (A, H) ANTHRACENE NG/L 20.0 N/A DIBENZO (C) (H, T) P	PROPAZINE	NG/L	50.	16000.	(D2)
SIMAZINE NG/L 50. 10000. (B3) POLYAROMATIC HYDROCARBONS PHENANTHRENE NG/L 10.0 N/A ANTHRACENE NG/L 1.0 N/A PHENANTHENE NG/L 20.0 N/A BENZO(A)ANTHRACENE NG/L 20.0 N/A BENZO(B)FUCGANTHENE NG/L 50.0 N/A BENZO(E)FYRENE NG/L 50.0 N/A BENZO(E)FYRENE NG/L 10.0 N/A BENZO(E)FUCGANTHENE NG/L 10.0 N/A BENZO(K)FLUORANTHENE NG/L 10.0 N/A BENZO(G,H)FYRENE NG/L 10.0 N/A BENZO(G,H,I)PERYLENE NG/L 10.0 N/A INDENO(1,2,3-c,D)PYRENE NG/L 20.0 N/A BENZO(B)CHRYSENE NG/L 10.0 N/A CORONENE NG/L 10.0 N/A CORONENE NG/L 10.0 N/A CORONENE NG/L <t< td=""><td>PROMETRYNE</td><td>NG/L</td><td>50.</td><td>1000.</td><td>(B3)</td></t<>	PROMETRYNE	NG/L	50.	1000.	(B3)
POLYAROMATIC EYDROCARBONS PHENANTHRENE NG/L 10.0 N/A ANTHRACENE NG/L 1.0 N/A FLUORANTHENE NG/L 20.0 42000. (D4) PYRENE NG/L 20.0 N/A BENZO(A) ANTHRACENE NG/L 20.0 N/A DIMETHYL BENZO(A) ANTHRACENE NG/L 50.0 N/A BENZO(B) FLUORANTHENE NG/L 50.0 N/A BENZO(K) FLUORANTHENE NG/L 10.0 N/A BENZO(K) FLUORANTHENE NG/L 10.0 N/A BENZO(K) FLUORANTHENE NG/L 10.0 N/A BENZO(G, M, I) PERYLENE NG/L 20.0 N/A DIBENZO(G, H, I) PERYLENE NG/L 20.0 N/A DIBENZO(B) CHRYSENE NG/L 20.0 N/A DIBENZO(A) PYRENE NG/L 20.0 N/A CORONENE NG/L 20.0 N/A CORONENE NG/L 10.0 N/A 2,4-DICHLOROBUTYRIC ACID	SENCOR (METRIBUZIN)	NG/L	100.	80000.	(82)
PHENANTHRENE NG/L 10.0 N/A ANTHRACENE NG/L 1.0 N/A ANTHRACENE NG/L 20.0 42000. (D4) PYRENE NG/L 20.0 N/A BENZO(A)ANTHRACENE NG/L 20.0 N/A CHRYSENE NG/L 50.0 N/A DIMETHYL BENZO(A)ANTHRACENE NG/L 50.0 N/A BENZO(E)PYRENE NG/L 10.0 N/A BENZO(E)FURORANTHENE NG/L 10.0 N/A BENZO(A)PYRENE NG/L 10.0 N/A BENZO(G, H, I PERYLENE NG/L 20.0 N/A BENZO(G, H, I PERYLENE NG/L 20.0 N/A DIBENZO(A, H)ANTHRACENE NG/L 20.0 N/A DIMENCI(A, H)ANTHRACENE NG/L 20.0 N/A DINDENCI(J, 2, 3-C, D) PYRENE NG/L 20.0 N/A CORONENE NG/L 10.0 N/A CORONENE NG/L 100. 100000.		NG/L	50.	10000.	(B3)
ANTHRACENE NG/L 1.0 N/A FLUORANTHENE NG/L 20.0 42000. (D4) PYRENE NG/L 20.0 N/A BENZO (A) ANTHRACENE NG/L 20.0 N/A CHRYSENE NG/L 50.0 N/A DIMETHYL BENZO (A) ANTHRACENE NG/L 5.0 N/A BENZO (B) FUDORANTHENE NG/L 10.0 N/A BENZO (C) PYRENE NG/L 10.0 N/A BENZO (C) FUDORANTHENE NG/L 10.0 N/A BENZO (C) FUDORANTHENE NG/L 10.0 N/A BENZO (C) FUDORANTHENE NG/L 10.0 N/A BENZO (C) (A) HORTHRACENE NG/L 10.0 N/A DIBENZO (C) (A) HORTHRACENE NG/L 20.0 N/A DIBENZO (C) (A) HORTHRACENE NG/L 20.0 N/A DIBENZO (C) (A) HORTHRACENE NG/L 20.0 N/A CORONENE NG/L 10.0 N/A DIEBENZO (B) CHRYSENE NG/L 20.0	POLYAROMATIC EYDROCARBONS				
ANTHRACENE NG/L 1.0 N/A FLUORANTHENE NG/L 20.0 42000. (D4) PYRENE NG/L 20.0 N/A BENZO (A) ANTHRACENE NG/L 20.0 N/A CHRYSENE NG/L 50.0 N/A DIMETHYL BENZO (A) ANTHRACENE NG/L 5.0 N/A BENZO (B) FUDORANTHENE NG/L 10.0 N/A BENZO (C) PYRENE NG/L 10.0 N/A BENZO (C) FUDORANTHENE NG/L 10.0 N/A BENZO (C) FUDORANTHENE NG/L 10.0 N/A BENZO (C) FUDORANTHENE NG/L 10.0 N/A BENZO (C) (A) HORTHRACENE NG/L 10.0 N/A DIBENZO (C) (A) HORTHRACENE NG/L 20.0 N/A DIBENZO (C) (A) HORTHRACENE NG/L 20.0 N/A DIBENZO (C) (A) HORTHRACENE NG/L 20.0 N/A CORONENE NG/L 10.0 N/A DIEBENZO (B) CHRYSENE NG/L 20.0	PHENANTHRENE	NG/L	10.0	N/A	
FLUORANTHENE NO/L 20.0 42000. (D4) PYRENE NG/L 20.0 N/A BENZO(A) ANTHRACENE NG/L 20.0 N/A CHRYSENE NG/L 50.0 N/A DIMETHIL BENZO(A) ANTHRACENE NG/L 50.0 N/A BENZO(E) PYRENE NG/L 50.0 N/A BENZO(E) FUORANTHENE NG/L 10.0 N/A BENZO(K) FUORANTHENE NG/L 10.0 N/A BENZO(G, H, I) PERYLENE NG/L 20.0 N/A BENZO(G, H, I) PERYLENE NG/L 20.0 N/A DIBENZO(A, H) NATHRACENE NG/L 20.0 N/A BENZO(G, H, I) PERYLENE NG/L 20.0 N/A DIBENZO(A, H) OPERYLENE NG/L 2.0 N/A CORONENE NG/L 10.0 N/A CORONENE NG/L 10.0 N/A 2,4-5-TRICHLOROBUTYRIC ACID NG/L 100. 100000. 2,4-DICHLOROROPHENOXY BUTTRIC ACID NG/L 10					
PYRENE NG/L 20.0 N/A BENZO(A)ANTHRACENE NG/L 20.0 N/A CHRYSENE NG/L 20.0 N/A CHRYSENE NG/L 50.0 N/A DIMETHIL BENZO(A)ANTHRACENE NG/L 50.0 N/A BENZO(E)PYRENE NG/L 50.0 N/A BENZO(B)FLUORANTHENE NG/L 10.0 N/A BENZO(A)PYRENE NG/L 1.0 N/A BENZO(G,H,I)PERYLENE NG/L 2.0 N/A DIBENZO(A,H)ANTHRACENE NG/L 20.0 N/A IDENZO(A,H)ANTHRACENE NG/L 20.0 N/A BENZO(B)CHRYSENE NG/L 2.0 N/A CORONENE NG/L 2.0 N/A SPECIFIC PESTICIDES TOXAPHENE NG/L 10.0 N/A Z,4-DICHLOROBUTYRIC ACID NG/L 50. 200000. (A1) Z,4-DICHLOROBUTYRIC ACID NG/L 100. 10000. (B3) Z,4-DICHLOROBUTYRIC ACID NG/L <td></td> <td>,</td> <td></td> <td></td> <td>(D4)</td>		,			(D4)
BENZO(A)ANTHRACENE NG/L 20.0 N/A CHRYSENE NG/L 50.0 N/A DIMETHYL BENZO(A)ANTHRACENE NG/L 50.0 N/A BENZO(E)PYRENE NG/L 50.0 N/A BENZO(E)PYRENE NG/L 10.0 N/A BENZO(E)PYRENE NG/L 10.0 N/A BENZO(K)FLUORANTHENE NG/L 10.0 N/A BENZO(A)PYRENE NG/L 10.0 N/A BENZO(A)PYRENE NG/L 20.0 N/A BENZO(A, H)ANTHRACENE NG/L 20.0 N/A IDEENZO(A, H)ANTHRACENE NG/L 20.0 N/A DIMENO(1,2,3-C, D)PYRENE NG/L 20.0 N/A CORONENE NG/L 10.0 N/A SPECIFIC PESTICIDES TOXAPHENE NG/L 100. 100000. (A1) 2,4-5-T1 NG/L 100. 100000. (B4) (2,4-5-T1) NG/L 100. 10000. (B3) 2,4-DICHLOROBUTYRIC ACID NG/L <td></td> <td></td> <td></td> <td></td> <td>()</td>					()
CHRYSENE NG/L 50.0 N/A DIMETHIL BENZO(A) ANTHRACENE NG/L 5.0 N/A BENZO(E) FYRENE NG/L 5.0 N/A BENZO(E) FILORANTHENE NG/L 10.0 N/A BENZO(E) FILORANTHENE NG/L 10.0 N/A BENZO(K) FILORANTHENE NG/L 10.0 N/A BENZO(K) FILORANTHENE NG/L 1.0 N/A BENZO(G, H, I) PERYLENE NG/L 20.0 N/A DIBENZO(G, H, I) PERYLENE NG/L 20.0 N/A DIBENZO(B) CHRYSENE NG/L 2.0 N/A CORONENE NG/L 10.0 N/A SPECIFIC PESTICIDES TOXAPHENE NG/L 10.0 N/A 2,4-5-TRICHLOROBUTYRIC ACID NG/L 100. 100000. (B4) 2,4-5-TOHOROBUTYRIC ACID NG/L 100. 100000. (B4) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (B1) JICAMBA NG/L 100. 100000.					
DIMETHYL BENZO(A)ANTHRACENE NG/L 5.0 N/A BENZO(B)PYRENE NG/L 50.0 N/A BENZO(B)FLUORANTHENE NG/L 10.0 N/A PERVLENE NG/L 10.0 N/A BENZO(B)FLUORANTHENE NG/L 10.0 N/A BENZO(A)FLUORANTHENE NG/L 1.0 N/A BENZO(A, J)PYRENE NG/L 20.0 N/A DIBENZO(A, J)PYRENE NG/L 20.0 N/A INDENO(1,2,3-C,D)PYRENE NG/L 20.0 N/A BENZO(B)CHRYSENE NG/L 20.0 N/A CORONENE NG/L 10.0 N/A SPECIFIC PESTICIDES SPECIFIC PESTICIDES COONOL. (A1) 2,4-5-TRICHLOROBUTYRIC ACID NG/L 100. 100000. (A1) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (B3) 2,4-DICHLOROBHENOXYBUTYRIC ACID NG/L 100. 190000. (B3) JICAMAM NG/L 100. 190000. (B1)				,	
BENZO(E) PYRENE NG/L 50.0 N/A BENZO(B) FLUGRANTHENE NG/L 10.0 N/A PERYLENE NG/L 10.0 N/A PERYLENE NG/L 10.0 N/A BENZO(R) FLUGRANTHENE NG/L 1.0 N/A BENZO(A) PYRENE NG/L 5.0 10. (B1) BENZO(G,H,I) PERYLENE NG/L 20.0 N/A DIBENZO(G,H,HATHRACENE NG/L 20.0 N/A INDENO(1,2,3-C,D) PYRENE NG/L 20.0 N/A CORONENE NG/L 2.0 N/A SPECIFIC PESTICIDES TOXAPHENE NG/L 10.0 N/A Z,4-5-TRICHLOROBUTYRIC ACID NG/L 50. 200000. (B1) Z,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (B1) Z,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (B3) Z,4-DICHLOROBUTYRIC ACID NG/L 100. 120000. (B3) Z,4-DICHLOROROPHENOXYBUTYRIC ACID NG/L					
BENZO(B)FLUORANTHENE NG/L 10.0 N/A PERXLENE NG/L 10.0 N/A BENZO(K)FLUORANTHENE NG/L 10.0 N/A BENZO(K)FLUORANTHENE NG/L 10.0 N/A BENZO(G,)PYRENE NG/L 20.0 N/A DIBENZO(G,H,I)PERYLENE NG/L 20.0 N/A DIBENZO(G,H,I)PERYLENE NG/L 20.0 N/A DIBENZO(B)CHRYSENE NG/L 2.0 N/A CORONENE NG/L 2.0 N/A CORONENE NG/L 10.0 N/A SPECIFIC PESTICIDES SOUTON (B4) (2,4,5-T) 2,4-5-TORCHOROBUTYRIC ACID (2,4-D) NG/L 100.1 100000. (B1) 2,4-DICHLOROBUTYRIC ACID (2,4-D) NG/L 100.1 100000. (B1) 2,4-DICHLOROBUTYRIC ACID (2,4-D) NG/L 100.1 100000. (B1) JICARMA NG/L 100.1 100000. (B1) JICARMA NG/L 100.1 100000. (B1) JIAINON NG/L					
PERYLENE NG/L 10.0 N/A BENZO(X)FUORANTHENE NG/L 1.0 N/A BENZO(A)PYRENE NG/L 1.0 N/A BENZO(A)PYRENE NG/L 20.0 N/A DIBENZO(A, H)ANTHRACENE NG/L 20.0 N/A INDENO(1, 2, 3-c, D)PYRENE NG/L 20.0 N/A CORONENE NG/L 2.0 N/A CORONENE NG/L 2.0 N/A CORONENE NG/L 10.0 N/A SPECIFIC PESTICIDES SC 200000. (B4) 2,4-5-TRICHLOROBUTYRIC ACID NG/L 100. 100000. (A1) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (B4) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (B3) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (B1) DICALOROBUTYRIC ACID NG/L 100. 100000. (B1) DICHLOROROPHENOXYBUTYRIC ACID NG/L 100. 1000000.					
BENZO(K)FLUORANTHENE NG/L 1.0 N/A BENZO(A)PYRENE NG/L S.0 10. (B1) BENZO(G,H,I)PERYLENE NG/L 20.0 N/A DIBENZO(A,H)ANTHRACENE NG/L 20.0 N/A INDENO(1,2,3-C,D)PYRENE NG/L 20.0 N/A BENZO(B)CHRYSENE NG/L 2.0 N/A CORONENE NG/L 10.0 N/A SPECIFIC PESTICIDES TOXAPHENE NG/L NG/L 20.0 (A1) 2,4-5-TRICHLOROBUTYRIC ACID NG/L 100.0 100000. (A1) 2,4-DICHLOROBUTYRIC ACID NG/L 100.1 100000. (B3) 2,4-DICHLORORPHENOXYBUTYRIC ACID NG/L 100.1 120000. (B3) PICLORAM NG/L 100.1 120000. (B1) PICLORAM NG/L 100.1 190000. (B3) SILVEX (2,4,5-TP) NG/L 20.0 N/A DICALORAVOS NG/L 20. N/A					
BENZO(A) PYRENE NG/L 5.0 10. (B1) BENZO(G,H,I) PERYLENE NG/L 20.0 N/A DIBENZO(A,H) ANTHRACENE NG/L 10.0 N/A DIBENZO(A,H) ANTHRACENE NG/L 20.0 N/A BENZO(B) CHRYSENE NG/L 20.0 N/A CORONENE NG/L 2.0 N/A SPECIFIC PESTICIDES TOXAPHENE NG/L N/A 5000. (A1) 2,4-5-TRICHLOROBUTYRIC ACID NG/L 50. 200000. (B4) (2,4-5-T) X-4-DICHLOROBUTYRIC ACID NG/L 100. 10000. (B1) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 18000. (B3) 2,4-DICHLORORPHENOXYBUTYRIC ACID NG/L 100. 190000. (B1) PICLORAM NG/L 100. 10000. (B1) SILVEX (2,4,5-TP) NG/L 20. N/A DICALOROVS NG/L 20. N/A DICALOROVS NG/L 20. N/A<					
BENZO(G,H,I)PERYLENE NG/L 20.0 N/A DIBENZO(A,H)ANTHRACENE NG/L 10.0 N/A DIBENZO(A,H)ANTHRACENE NG/L 20.0 N/A BENZO(B)CHRYSENE NG/L 20.0 N/A CORONENE NG/L 2.0 N/A SPECIFIC PESTICIDES TOXAPHENE NG/L N/A 5000. (A1) 2,4,5-TRICHLOROBUTYRIC ACID NG/L 100. 100000. (A1) 2,4-DICHLOROBUTYRIC ACID (2,4-D) NG/L 100. 100000. (A1) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (A1) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (B3) 2,4-D PROPIONIC ACID NG/L 100. 100000. (B1) PICLORAM NG/L 100. 100000. (B1) DICALOROVS NG/L 20. N/A DURSBAN NG/L 20. N/A DICHLOROVOS NG/L 20. N/A					(B1)
DIBENZO (A, H) ANTHRACENE NG/L 10.0 N/A INDENO(1,2,3-C,D) PYRENE NG/L 20.0 N/A BENZO (B) CHRYSENE NG/L 20.0 N/A CORONENE NG/L 10.0 N/A SPECIFIC PESTICIDES TOXAPHENE NG/L N/A 5000. (A1) 2,4,5-TRICHLOROBUTYRIC ACID NG/L 100. 100000. (A1) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (B3) 2,4-DICHLOROBHENOXYBUTYRIC ACID NG/L 100. 120000. (B1) PICLORAM NG/L 100. 120000. (B1) PICLORAM NG/L 100. 190000. (B1) DICALDRAV NG/L 20. 1001. (B1) DICALORAV NG/L 20. N/A EB1) DICALORAV NG/L 20. N/A EB1) DICALORAN NG/L 20. N/A EB1) DICALORAN NG/L 20.			20.0	N/A	
INDENO(1,2,3-C,D)PYRENE NG/L 20.0 N/A BENZO(B)CHRYSENE NG/L 2.0 N/A CORONENE NG/L 2.0 N/A SPECIFIC PESTICIDES SPECIFIC PESTICIDES NG/L 10.0 N/A 2,4-5/CROROBUTYRIC ACID NG/L 50. 200000. (B4) 2,4-5/CROROBUTYRIC ACID (2,4-D) NG/L 100. 100000. (A1) 2,4-5/CROROBUTYRIC ACID (2,4-D) NG/L 100. 100000. (B3) 2,4-5/CROROBUTYRIC ACID NG/L 100. 120000. (B1) DICALORORORMENOX NG/L 100. 120000. (B1)		,			
BENZO(B)CHRYSENE NG/L 2.0 N/A CORONENE NG/L 10.0 N/A SPECIFIC PESTICIDES SPECIFIC PESTICIDES SPECIFIC PESTICIDES TOXAPHENE NG/L N/A 50.0 (A1) 2,4,5-TRICHLOROBUTYRIC ACID NG/L 10.0 100000. (A1) 2,4-DICHLOROBUTYRIC ACID (2,4-D) NG/L 100. 100000. (A1) 2,4-DICHLORORPHENOXYBUTYRIC ACID NG/L 100. 100000. (B1) PICLORAM NG/L 100. 100000. (B1) DICAMBA NG/L 100. 100000. (B1) DICALOROVS NG/L 20. N/A DICHLORVOS NG/L 20. N/A DURSBAN NG/L 20. N/A DURSBAN NG/L 20. N/A ETHION NG/L 20. 10000. GUTHION(AZINPHOSMETHYL) NG/L 20. 10000. MALATHION NG/L 20. 10000. (B1) <td></td> <td>NG/L</td> <td>20.0</td> <td>N/A</td> <td></td>		NG/L	20.0	N/A	
CORONENE NG/L 10.0 N/A SPECIFIC PESTICIDES TOXAPHENE NG/L N/A 5000. (A1) 2,4,5-TRICHLOROBUTYRIC ACID NG/L 20. 20000. (B4) (2,4,5-T) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (A1) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (A1) 2,4-DICHLORORPHENOXYBUTYRIC ACID NG/L 200. 18000. (B3) 2,4-D PROPIONIC ACID NG/L 100. 120000. (B1) PICLORAM NG/L 100. 190000. (B3) SILVEX (2,4,5-TP) NG/L 50. 10000. (B1) DIAZINON NG/L 20. N/A DURSBAN NG/L 20. N/A ETHION NG/L 20. N/A GUTHION((AZINPHOSMETHYL) NG/L 20. 190000. (B1) MALATHION NG/L 20. 190000. (B1) MALATHION NG/			2.0	N/A	
TOXAPHENE NG/L N/A 5000. (A) 2,4,5-TRICHLOROBUTYRIC ACID NG/L 50. 200000. (B4) (2,4,5-T) 2 2 4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (A1) 2,4-DICHLOROBUTYRIC ACID NG/L 100. 100000. (A1) 2,4-DICHLOROBPHENOXYBUTYRIC ACID NG/L 100. 18000. (B3) 2,4-D PROPIONIC ACID NG/L 100. 190000. (B3) DICAMBA NG/L 100. 190000. (B1) PICLORAM NG/L 20. 1000. (A1) DIAZINON NG/L 20. N/A DURSBAN NG/L 20. N/A ETHION NG/L 20. N/A GUTHION((AZINPHOSMETHYL) NG/L 20. N/A MALATHION NG/L 20. 190000. (B1) MALATHION NG/L 20. N/A METHYL PARATHION NG/L 20. N/A			10.0	N/A	
2,4,5-TRICHLOROBUTYRIC ACID NO/L 50. 200000. (B4) (2,4,5-T)	SPECIFIC PESTICIDES				
(2,4,5-T) 2,4-DICHLOROBUTYRIC ACID (2,4-D) NG/L 100. 100000. (A1) 2,4-DICHLORORPHENOXYBUTYRIC ACID NG/L 200. 18000. (B3) 2,4-D PROFIONIC ACID NG/L 100. 120000. (B1) DICAMBA NG/L 100. 120000. (B1) PICLORAM NG/L 100. 120000. (B1) SILVEX (2,4,5-TP) NG/L 20. 20000. (B1) DICALDONON NG/L 20. 20000. (B1) DICHLOROVOS NG/L 20. N/A ETHION NG/L 20. 35000. (G) GUTHION (AZINPHOSMETHYL) NG/L 20. 190000. (B1) MEVINPHOS NG/L 20. N/A METHYL PARATHION NG/L 20. N/A	TOXAPHENE	NG/L	N/A	5000.	(A1)
(2,4,5-T) 2,4-DICHLOROBUTYRIC ACID (2,4-D) NG/L 100. 100000. (A1) 2,4-DICHLORORPHENOXYBUTYRIC ACID NG/L 200. 18000. (B3) 2,4-D PROFIONIC ACID NG/L 100. 120000. (B1) DICAMBA NG/L 100. 120000. (B1) PICLORAM NG/L 100. 120000. (B1) SILVEX (2,4,5-TP) NG/L 20. 20000. (B1) DICALDONON NG/L 20. 20000. (B1) DICHLOROVOS NG/L 20. N/A ETHION NG/L 20. 35000. (G) GUTHION (AZINPHOSMETHYL) NG/L 20. 190000. (B1) MEVINPHOS NG/L 20. N/A METHYL PARATHION NG/L 20. N/A	2,4,5-TRICHLOROBUTYRIC ACID	,			
2,4-DICHLOROBUTYRIC ACID (2,4-D) NG/L 100. 100000. (A1) 2,4-DICHLORORPHENOXYBUTYRIC ACID NG/L 200. 18000. (B3) 2,4-D PROPIONIC ACID NG/L 100. N/A DICAMBA NG/L 100. 190000. (B1) PICLORAM NG/L 100. 190000. (B3) SILVEX (2,4,5-TP) NG/L 50. 10000. (A1) DICAIBAN NG/L 20. 20000. (B1) DIAZINON NG/L 20. N/A DURSBAN NG/L 20. N/A ETHION NG/L 20. N/A GUTHION(AZINPHOSMETHYL) NG/L 20. 190000. (B1) MALATHION NG/L 20. 190000. (B1) MEINPHOS NG/L 20. N/A METHYL PARATHION NG/L 20. N/A METHYL PARATHION NG/L 20. N/A		,			. ,
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METHYLTRITHION NG/L 20. N/A					(A1)
					()
					(B1)
					(= =)

	DETECTION			
SCAN/PARAMETER	UNIT	LIMIT	GUIDE	LINE
PHORATE (THIMET)	NG/L	20.	2000.	(B3)
RELDAN	NG/L	20.	N/A	
RONNEL	NG/L	20.	N/A	
AMINOCARB	NG/L	N/A	N/A	
BENONYL	NG/L	N/A	N/A	
BUX (METALKAMATE)	NG/L	2000.	N/A	
CARBOFURAN	NG/L	2000.	90000.	(B1)
CICP (CHLORPROPHAM)	NG/L	2000.	350000.	(G)
DIALLATE	NG/L	2000.	30000.	(H)
EPTAM	NG/L	2000.	N/A	
IPC	NG/L	2000.	N/A	(0)
PROPOXUR (BAYGON)	NG/L	2000.	90000.	(G)
SEVIN (CARBARYL)	NG/L	200.	90000.	(B1)
SUTAN (BUTYLATE)	NG/L	2000.	245000.	(D3)
VOLATILES				
BENZENE	UG/L	. 0	50 5.0) (B1)
TOLUENE	UG/L	.0	50 24.0) (B4)
ETHYLBENZENE	UG/L	.0	50 2.4	(84)
PARA-XYLENE	UG/L	. 1	00 300.	(B4)
META-XYLENE	UG/L	.1	00 300.	(B4)
ORTHO-XYLENE	UG/L	.0	50 300.	(B4)
1,1-DICHLOROETHYLENE	UG/L	.1	00 7.0) (D1)
ETHLYENE DIBROMIDE	UG/L	.0	5 .(05 G)
METHYLENE CHLORIDE	UG/L	. 5	00 50.	. ,
TRANS-1, 2-DICHLOROETHYLENE	UG/L	.1	00 70.	
1,1-DICHLOROETHANE	UG/L	.1	00 N/A	
CHLOROFORM	UG/L			(A1+)
1,1,1-TRICHLOROETHANE	UG/L		20 200.	
1,2-DICHLOROETHANE	UG/L) (D1)
CARBON TETRACHLORIDE	UG/L			O (B1)
1,2-DICHLOROPROPANE	UG/L			D (D5)
TRICHLOROETHYLENE	UG/L		.00 50.	
DICHLOROBROMOMETHANE	UG/L		50 350.	• •
1,1,2-TRICHLOROETHANE	UG/L			60(D4)
CHLORODIBROMOMETHANE	UG/L		.00 350.	(A1+) 0 (C2)
TETRACHLOROETHYLENE	UG/L			• •
BROMOFORM	UG/L			(A1+) 17(D4)
1,1,2,2-TETRACHLOROETHANE	UG/L			
CHLOROBENZENE	UG/L			(D5) 0 (B4)
1,4-DICHLOROBENZENE	UG/L		100 130.	
1,3-DICHLOROBENZENE	UG/L			0 (B4)
1,2-DICHLOROBENZENE	UG/L		100 N/A	
TRIFLUOROCHLOROTOLUENE	UG/L UG/L		500 350.	
TOTAL TRIHALOMETHANES	UG/L UG/L)5 140.	
STYRENE	06/1			(==)

Appendix A

DRINKING WATER SURVEILLANCE PROGRAM

The Drinking Water Surveillance Program (DWSP) for Ontario monitors drinking water quality at municipal water supply systems. The DWSP Database Management System provides a computerized drinking water quality information system for the supplies monitored. The objectives of the program are to provide:

- immediate, reliable, current information on drinking water quality,
- a flagging mechanism for 'Objective' exceedence,
- a definition of contaminant levels and trends,
- a comprehensive background for remedial action,
- a framework for assessment of new contaminants,
- and an indication of treatment efficiency of plant processes.

Program

The DWSP officially began in April 1986 and is designed to eventually include all municipal water supplies in Ontario; currently 44 plants are being monitored. Water supply locations have been prioritized for surveillance, based primarily on criteria such as population density, probability of contamination and geographical location.

i

An ongoing assessment of future monitoring requirements at each location will be made. Monitoring will continue at the initial locations at an appropriate level and further locations will be phased into the program as resources permit. It is estimated that after 4 years of operation, the program will be monitoring 90 locations.

A major goal of the program is to collect valid water quality data, in context with plant operational characteristics at the time of sampling. As soon as sufficient data have been accumulated and analysed, both the frequency of sampling and the range of parameters may be adjusted accordingly.

Assessments are carried out at all locations prior to initial sampling in order to acquire complete plant process and distribution system details, and to designate (and retrofit if necessary) all sampling systems and locations. This ensures that the sampled water is a reflection of the water itself.

Samples are taken of the raw (ambient water) and the treated water at the treatment plant, and of consumer's tap water in the distribution system. In order to determine possible effects of distribution on water quality, both standing and free flow water in old and new sections of the distribution system are sampled.

ii

Sampling is carried out by operational personnel who have been trained in the applicable procedures.

Comprehensive standardized procedures and Field Test kits are supplied to sampling personnel. This ensures that samples are taken and handled according to standard protocols and that field testing will supply reliable data. All field and laboratory analyses are carried out using "approved documented procedures". All laboratory analyses are carried out by the MOE Laboratory Services Branch.

Data Reporting Mechanism

When the analytical results are transferred from the MOE laboratory into the DWSP system, printouts of the completed analyses are sent to the MOE District Officer, the appropriate operational staff and are also retained by the DWSP co-ordinator.

DWSP INPUTS AND OUTPUTS

The DWSP INPUTS and OUTPUTS are illustrated in Fig. 1.

PROGRAM INPUTS

PLANT AND DISTRIBUTION SYSTEM DESCRIPTION

The system description includes plant specific non-analytical information acquired through a questionnaire and initial plant

iii

visit. During the initial assessment of the plant and distribution system the questionnaire content is verified and missing information added. It is intended that all data be kept current with scheduled annual updates.

The PLANT and DISTRIBUTION SYSTEM DESCRIPTION consists of the following seven components.

1. Process component inventory

All physical and chemical processes that the water is subjected to, from the intake pipe to the consumers' tap (where possible), are documented. These include: process type, general description of physical structures, materia types, sizes, and retention time for each process within the plant. The processes may be as simple as transmission or as complex as carbon adsorption.

2. Treatment chemicals

Chemicals used in the treatment processes, their function, application point, supplier and brand-name are recorded. The chemical dosages applied on the day of sampling are recorded in DWSP.

3. Process control measurements

Documentation of in-plant monitoring of process parameters (turbidity, chlorine residuals, pH, aluminum residuals) including methods used, monitoring locations and frequency is contained in

iv

this section. In-plant monitoring results are generally not retained in DWSP but are retained by the Water Treatment Plant.

4. Design flow and retention time

The hydraulic capacity, designed and actual, is noted here. Retention time (the time that a block of water is retained in the plant) is also noted. The maximum, minimum and average flow as well as a record of the flow rate on the day of sampling are recorded in DWSP.

5. Distribution system description

This area includes the storage and transmission characteristics of the distribution system after the water leaves the plant.

6. Sampling system

Each plant is assessed for its adequacy in terms of sampling of bacteriological, organic and inorganic parameters. The prime considerations in the assessment and design of the sampling system are:

- i/ the sample is an accurate representation of the actual water condition, eg. raw water has had no chemical treatment;
- ii/ the water being sampled is not being modified by the sampling system;
- iii/ the sample tap must be in a clean area of the plant,

preferably a lab area;

iv/ the sample lines must be organically inert (no plastic, ideally stainless steel).

It is imperative that the sampled water be a reflection not of the sampling system but of the water itself.

The sampling system documentation includes: origin of the water; date sampling was initiated; size, length and material type (intake, discharge and tap), pump characteristics (model, type, capacity) and flow rate.

7. People

This section contains the names, addresses and phone numbers of current plant management and operational staff, distribution system management and operational staff, Medical Officer of Health and appropriate Ministry of Environment personnel associated with the plant.

FIELD DATA

The second major input to DWSP is field data.

Field data is collected at the plant and from the distribution system sites on the day of sampling. The field data consists of general operating conditions and the results of testing for field parameters. General operating conditions include chemicals used,

vi

dosages, flow and retention time on the day of sampling as well as monthly maximum, minimum and average flows. Field parameters include turbidity, chlorine residuals (free, combined and total), temperature and pH. These parameters are analysed according to standardized DWSP protocols to allow for interplant comparison.

LABORATORY ANALYTICAL DATA

The third major input to DWSP is Laboratory Analytical Data.

Samples gathered from the raw, treated and distribution sampling sites are analyzed for approximately 180 parameters at a frequency of two to twelve times per year. Sixty-five percent of the parameters are organic. The parameters measured may have health or aesthetic implications when present in drinking water. Many of the parameters may be used in the treatment process or may be treatment by-products. Due to the nature of certain analytical instruments parameters may be measured for in a "scan" producing some results for parameters that are not on the DWSP priority list but which may be of interest. The majority of the parameters are measured on a routine basis however, those that are technically more difficult and/or costly to analyse for are done less frequently. These include Specific Pesticides and Chlorophenols.

Although the parameter list is extensive, additional parameters with the potential to cause health or aesthetic related problems

vii

may be added provided reliable analytical and sampling methods exist.

All laboratory generated data is derived from standardized, documented analytical protocols. The analytical method is an integral part of the data and as methods change notation will e be made and intercomparison data documented.

PARAMETER REFERENCE INFORMATION

The fourth major input to DWSP is Parameter Reference Information. This is a catalogue of information for each substance analysed on DWSP. It includes parameter name and aliases, physical and chemical properties, basic toxicology, world-wide health limits, treatment methods and uses. The Parameter Reference Information is computerized and can be accessed through the Query function of the DWSP database.

An example is shown in fig. 2.

A written copy (hard version) of the Parameter Reference Information will be available in the near future and is a new and sophisticated enhancement to the DWSP.

PROGRAM OUTPUTS

There are four major program outputs, Query, Action Alert, Report Generation and the Annual Report.

viii

QUERY

All DWSP information is easily accessed through the Query function, therefore anything from addresses of plant personnel to complete water quality information for a plant's water supply is instantly available. The DWSP computer system makes relatively complex inquiries manageable. A personal password allowing access into the DWSP query mode in all MOE offic is is being developed by the DWSP group.

ACTION ALERTS

Drinking Water quality in Ontario is evaluated against provincial objectives as outlined in the jublication, Ontario Drinking Water Objectives (ISBN 0-7729-2725-* revised 1983). This publication contains health-related Maxium Acceptable Concentrations for thirty substances. Should the reported level of a substance in treated water exceed the Octario Drinking Water Objective an "Action Alert" requiring resampling and confirmation is issued. This assures that operational staff, health authorities and the public are notified as soor as possible of confirmation of an exceedance and remedial action taken. This report supplies a history of the occurrence of past exceedences at the plant plus a historical summary on the parameter of concern.

In the absence of Ontario Drirking Water Objectives, other agency guidelines which are documented in the Parameter Reference

ix

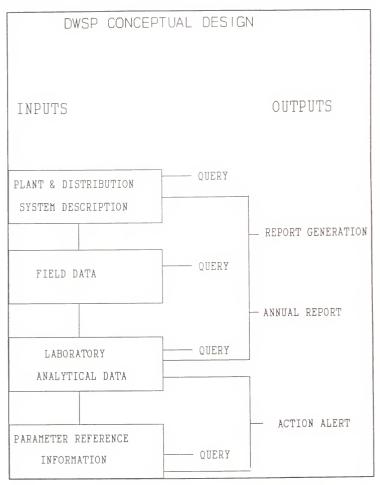
Information may be used. If these guidelines are exceeded the results are flagged and evaluated by DWSP personnel. An "Action Alert" will be issued if warranted.

REPORT GENERATION

Custom reports can be generated from DWSP to meet the needs of the regions and to respond to public requests.

ANNUAL REPORTS

It is the practice of DWSP to produce an annual report containing analytical data along with companion plant information. FIG. 1



MOE - DRINKING WATER ASSESSMENT PROGRAM (DWSP)

(B2001P) BENZENE PARAMETER REFERENCE

SOURCE	FROM	TO	METHOD	TARG	UNIT	NOTE
EPA C	86/04		NOMETH	.00	063000 UG/L	RMCL
EPAA C	80/11		NOMETH	6.60	063000 UG/L	
FERC C	84/05		NOMETH	1.00	063000 UG/L	
WHO C	84/01		NOMETH	10.00	064000 UG/L	

DESCRIPTION: NAME: BENZENE

CAS#: 71432 MOLECULAR FORMULAE: C6H6 DETECTION LIMIT: (FOR METHOD POCODO) 0.05 UG/L SYNONYMS: BENZOLE, COAL NAPHTHA, CARBON OIL (27). CYCLOHEXATRIENE (41) CHARACTERISTICS: COLOURLESS TO LIGHT YELLOW, MOBILE, NON-POLAR LIQUID, OF HIGHLY REFRACTIVE NATURE. AROMATIC, VAPOURS BURN WITH SMOKING FLAME (30) PROPERTIES: SOLUBILITY IN WATER: 1780-1800 MG/L AT 25 DEG C (41) THRESHOLD ODOUR: NO DATA THRESHOLD TASTE: 0.5 MG/L IN WATER (39) ENVIRONMENTAL FATE: MAY BIOACCUMUALTE IN LIVING ORGANISMS, APPEARS TO BIOACCUMULATE IN ANIMAL TISSUES THAT EXHIBIT HIGH LIPID CONTENT OR ARE MAJOR METABOLIC SITES (LIVER, BRAIN), SMALL QUANITIES EVAPORATE FROM SOIL OR DEGRADE QUICKLY SOURCES: PETROLEUM REFINING, SOLVENT RECOVERY, COAL TAR DISTILLATION, FOOD PROCESSING, TANNING. USES: PREPERATION OF ETHYL BENZENE USED AS A STYRENE MONOMER, DETERGENTS, NYLON, AS INTERMEDIATE IN PESTICIDE PRODUCTION, SOLVENT IN RUBBER INDUSTRY, DEGREASING AND CLEANSING AGENT, GASOLINE. TOXICITY: RATING 4 (VERY TOXIC); ACUTE - IRRITATES MUCOUS MEMBRANES, SYMPTONS INCLUDE RESTLESSNESS, CONVULSIONS, DEPRESSION, RESPIRATORY FAILURE; CHRONIC - ANEMIA AND LEUKEMIA (45). CARINOGENICITY: HUMAN CARCINOGEN AND MUTAGEN REMOVAL: GAC ADSORPTION, PRECIPITATION WITH ALUM FOLLOWED BY SEDIMENTATION, COAGULATION AND FLOCCULATION, SOLVENT EXTRACTION, OXIDATION (41). MOLECULAR WEIGHT: 78.12 GRAMS MELTING POINT: 5.5 DEGREES C (27) BOILING POINT: 80.1 DEGREES C (27) SPECIFIC GRAVITY: 0.879 AT 20 DEGREES C (27) VAPOUR PRESSURE: 100 MM AT 26.1 DEGREES C HENRY'S LAW CONSTANT: 0.00555 ATM M₃/MOLE LOG OCT./WATER PAR.COEFF:K=1.0 1/N=1.6 R=.97 PH=5.3

Appendix B

DWSP SAMPLING GUIDELINE

i) RAW and TREATED at PLANT

General Chemistry	-500 mL clear plastic bottle -rinse bottle with sample three times and discard water -fill to line
Bacti	-250 mL clear glass bottle with white seal on cap -do <u>not</u> rinse bottle; preservative has been added -avoid touching bottle neck or inside of cap -fill to top of red label as marked
Metals	-500 mL clear plastic bottle with white lid -rinse bottle and cap three times, discard -fill to line -add 10 drops nitric acid (Caution: HNO ₃ is corrosive)
Volatiles (OPOPUP)	-250 mL clear glass bottle -do <u>not</u> rinse bottle -tilt bottle when filling -fill bottle completely; there should be no air bubbles.
Organic	-1 liter brown glass bottle per scan
(OWOC),(OWTRI),(OAPAHX)	-do <u>not</u> rinse bottle -fill to approx. 1" from top -when 'special pesticides' are requested three extra bottles per sample must be submitted
Cyanide	-500 mL clear plastic bottle -do <u>not</u> rinse bottle -fill to approx. 1" from top -add 10 drops sodium hydroxide (Caution: NaOH is corrosive) i
	*

Mercury	-250 mL clear glass bottle -rinse ottle and cap three times, discarc then fill to top of label -add 20 drops each nitric acid and potass um dichromate (Cautio :: HNO3 and KCrO7 corrosive)
Phenols	-250 mI clear glass bottle -do <u>not</u> rinse bottle -fil to top of label as marked

<u>Steps</u>

- 1. Let cold water tap run for s veral minutes.
- 2. Record time in submission sheet.
- 3. Record teperature on submission sheet.
- 4. Fill up all bottles as per instructions.
- Record chlorine residuals free, combined and total for treated water only), turbicity and pH on submission sheet.

ii) Distribution Samples (standing water)

General Chemistry	-500 mL clear palstic bottle -rinse bottle with sample three times and discard -fill to line
Metals	-500 mL clear plastic bottle with white lid -rinse bottle and cap three times, discard -fill to line -add 10 drops nitric acid (Caution: HNO3 is corrosive)

Steps:

- 1. Record time on submission sheet.
- 2. Place bucket under tap and open cold water.
- 3. Fill to predetermined volume.
- 4. After mixing the water, record the temperature on the submission sheet.
- 5. Fill general chemistry and metals bottles.
- Record chlorine residuals (free, combined and total), turbidity and pH on submission sheet.

iii) Distribution Samples (free flow)

General Chemistry	-500 mL clear plastic bottle -rinse bottle with sample three times and discard water -fill to line
Bacti	-250 mL clear glass bottle with white seal on cap -do <u>not</u> rinse bottle; preservative has been added -avoid touching bottle neck or inside of cap -fill to top of red label as marked
Metals	-500 mL clear plastic bottle with white lid -rinse bottle and cap three times, discard -fill to line -add 10 drops nitric acid (Caution: HNO ₃ is corrosive)
Volatiles (OPOPUP)	-250 mL clear glass bottle -do <u>not</u> rinse bottle; preservative has been added -tilt bottle when filling -fill bottle completely; there should be no air bubbles
Organic	-1 liter brown glass bottle per
(OWOC),(OWTRI)	scan -do <u>not</u> rinse bottle: preservative has been added -fill to approx. 1" from top
Cyanide	-500 mL clear plastic bottle -do <u>not</u> rinse bottle: preservative has been added -fill to approx. 1" from top -add 10 drops sodium hydroxide (Caution: NaOH is corrosive)
Mercury	-250 mL clear glass bottle -rinse bottle and cap three times, discard then fill to top of label -add 20 drops each nitric acid ad
potassium dichromate	(Caution: HNO ₃ and KCrO7 corrosive)

Steps:

- 1. Record time on submission sheet.
- 2. Let cold water flow for five minutes.
- 3. Record temperature on submission sheet.
- 4. Fill all bottles as per instructions.
- Record chlorine residuals (free, combined and total), tubidity and pH on submission sheet.

Tabi				
	DETECTION			
SCAN/PARAMETER	UNIT	LIMIT	GUIDELINE	
BACTERIOLOGICAL				
FECAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	0 (A1)	
STANDARD PLATE COUNT MEMBRANE	CT/ML	ō	500/ML(A1)	
FILTRATION			,	
TOTAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	5/100mL(A1)	
TOTAL COLIFORM BACKGROUND MF	CT/100ML	0	N/A	
TOTAL COLITICITI MICROROUP III		•	.,	
CHLOROAROMATICS				
HEXACHLOROBUTADIENE	NG/L	1.000	450. (D4)	
1,2,3-TRICHLOROBENZENE	NG/L	5.000	10000 (I)	
1,2,3,4-TETRACHLOROBENZENE	NG/L	1.000	10000 (I)	
1,2,3,5-TETRACHLOROBENZENE	NG/L	1.000	10000 (I)	
1,2,4-TRICHLOROBENZENE	NG/L	5.000	10000 (I)	
1,2,4,5-TETRACHLOROBENZENE	NG/L	1.000	38000 (D4)	
1,3,5-TRICHLOROBENZENE	NG/L	5.000	10000 (D4)	
HEXACHLOROBENZENE	NG/L	1.0	10. (C1)	
HEXACHLOROETHANE	NG/L	1.000	1900. (D4)	
OCTACHLOROSTYRENE	NG/L	1.000	N/A	
PENTACHLOROBENZENE	NG/L	1.000	74000 (D4)	
2,3,6-TRICHLOROTOLUENE	NG/L	5.000	N/A	
2,4,5-TRICHLOROTOLUENE	NG/L	5.000	N/A	
2,6,A-TRICHLOROTOLUENE	NG/L	5.000	N/A	
CHLOROPHENOLS				
2,3,4-TRICHLOROPHENOL	NG/L	50.	N/A	
2,3,4,5-TETRACHLOROPHENOL	NG/L	50.	N/A	
2, 3, 5, 6-TETRACHLOROPHENOL	NG/L	10.	N/A	
2,4,5-TRICHLOROPHENOL	NG/L	50. 2	600000 (D4)	
2,4,6-TRICHLOROPHENOL	NG/L	20.	2000. (B4)	
PENTACHLOROPHENOL	NG/L	50.	30000. (B4)	
CHEMISTRY (FLD)				
FIELD COMBINED CHLORINE RESIDUAL	MG/L	N/A	N/A	
FIELD FREE CHLORINE RESIDUAL	MG/L	N/A	N/A	
FIELD TOTAL CHLORINE RESIDUAL	MG/L	N/A	N/A	
FIELD PH	DMSNLESS	N/A	6.5-8.5(A4)	
FIELD TEMPERATURE	°c	N/A	<15 ^o C(A1)	
FIELD TURBIDITY	FTU	N/A	1.0 (Al)	
CHEMISTRY (LAB)				
ALKALINITY	MG/L	.200		
CALCIUM	MG/L	.100		
CYANIDE	MG/L	.001		
CHLORIDE	MG/L	.200		
COLOUR	TCU	.5	5.0 (A3)	
CONDUCTIVITY	UMHO/CM	1.	400. (F2)	
FLUORIDE	MG/L	.01	2.4 (A1)	
HARDNESS	MG/L MG/L	.50	80-100(A4) 30. (F2)	
MAGNESIUM	HG/L	.05	50. (22)	

Table 6

